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L. Ronald Jorgensen

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THE DEFENSE OF AVIATION MECHANICS AND REPAIR FACILITIES FROM ENFORCEMENT ACTIONS OF THE FEDERAL AVIATION ADMINISTRATION

L. RONALD JORGENSEN*

THE PURPOSE of this article is twofold. The first purpose is to examine those actions that the Federal Aviation Administration (FAA) may take against individual aviation mechanics and against air maintenance facilities in order to enforce the Federal Aviation Regulations (FARs). The second purpose is to examine the issues and procedures that an attorney who represents the mechanic or repair facility should know to ensure that his client will have the best opportunity to prevail against the FAA.

The FAA brings enforcement actions against members of the aviation community for alleged violations of the FARs. The usual type of action is an enforcement action against a pilot who commits an error while flying an aircraft. The typical pilot case is similar to an automobile traffic case. The bulk of the evidence consists of eyewitness testimony about the pilot's actions during the flight.

* Mr. Jorgensen received both a J.D. and a M.B.A. from Santa Clara University in 1981 and an A.B. from the University of California, Davis, in 1975. He presently practices law in Middletown, Maryland.

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The FAA also brings actions against aviation mechanics and air maintenance facilities. Evidence in these cases is typically based on the tests performed by FAA inspectors and other maintenance experts on aircraft and aircraft parts. Such tests are designed to demonstrate whether an aircraft has been properly maintained. It is these FAA reports and tests that the attorney defending the mechanic must attack. The attorney defending the aviation mechanic must not be afraid to question the tests and conclusions formed by the FAA inspectors. Many actions brought by the FAA that initially appear solid may actually be based on poorly conceived and executed tests which fail to distinguish between properly and improperly performed maintenance.

This article is divided into four parts. Part I describes the FAA certifications which a mechanic or maintenance facility needs in order to perform maintenance on the United States civilian air fleet, and also discusses the role of the FAA in investigating alleged violations of the FARs. Part II examines maintenance responsibilities and standards, as articulated in the FARs, and in recent decisions of the National Transportation Safety Board (NTSB). Part III examines in detail the conduct of a maintenance case before the NTSB. Part IV examines the relationships between the FAA, the NTSB and the FARs. Although this article is directed at the attorney defending an aviation mechanic or air maintenance facility against FAA actions, much of this article will be relevant to other aviation attorneys. State and federal courts often look to the FARs for guidance in determining the standards of care in aviation cases.¹

¹ See, e.g., *Gatenby v. Altoona Aviation Corp.*, 407 F.2d 443, 446-47 (3d Cir. 1968) (violation of FAA safety regulations, including failure to keep abreast of weather conditions and failure to follow VFR regulations, is negligence per se); *Davis v. United States*, 643 F. Supp. 67, 77-78 (N.D. Ill. 1986), *aff'd*, 824 F.2d 549, 555 (7th Cir. 1987) (one aspect of pilot's responsibility for the operation of an aircraft is to make an informed decision concerning weather conditions); *New Hampshire Ins. Co. v. United States*, 641 F. Supp. 642, 650-51 (D.P.R. 1986) (pilot has primary duty to avoid collisions and wake turbulence, regardless of whether instructions have been given by air traffic control), *aff'd*, 838 F.2d 595

I. THE PARTIES

The Federal Aviation Act of 1958 empowers and re-

(1st Cir. 1988); *In re N-500L Cases*, 517 F. Supp. 825, 833-34 (D.P.R. 1981), *aff'd*, 691 F.2d 15, 28, 31, 32 (1st Cir. 1982) (pilot is directly responsible for and is the final authority of the operation of the aircraft which includes avoiding collisions and wake turbulence, following instructions from air traffic controllers, and complying with proper operating practices); *Knight v. United States*, 498 F. Supp. 316, 324 (E.D. Mich. 1980) (pilot's violation of FAA regulations and operation of aircraft in an "extremely hazardous manner . . . constitute carelessness and reckless operation in violation of 14 C.F.R. § 91.9"); *Associated Aviation Underwriters v. United States*, 462 F. Supp. 674, 680-81 (N.D. Tex. 1978) (pilot is charged with knowledge of FAA regulations pertaining to his flying activities, including flying in dangerous weather for which air traffic controllers cannot assume pilot's primary responsibility for the safe operation of the aircraft); *Rudelson v. United States*, 431 F. Supp. 1101 (C.D. Cal. 1977) (rule that violation of FARs is negligence per se is consistent with violation of a safety regulation under California law), *aff'd*, 602 F.2d 1326 (9th Cir. 1979); *Rathvon v. Columbia Pac. Airlines*, 30 Wash. App. 193, 633 P.2d 122 (Ct. App. 1981) (violations of FARs, like violations of any other regulations, may constitute negligence per se, but whether airline's employees violated FARs by failing to report and repair malfunctions was a mixed question of fact and law incapable of resolution by summary judgment); *United States Aviation Underwriters, Inc. v. National Ins. Underwriters*, 117 Wis. 2d 417, 344 N.W.2d 532 (Ct. App. 1984) (violation of FARs right-of-way procedures constitutes negligence per se). For examples of violations of the FARs as negligence per se, see *Rawl v. United States*, 778 F.2d 1009 (4th Cir. 1985) (pilot was contributorily negligent as a matter of law when he flew in deteriorating weather conditions although he was not certified to fly by instrument flight rules (IFR) and accepted an IFR flight clearance for which he was not qualified), *cert. denied*, 479 U.S. 814 (1986); *Brooks v. United States*, 695 F.2d 984 (5th Cir. 1983) (pilot was negligent in failing to obtain weather and other information regarding his flight as required by FARs having the force of law); *Travelers Ins. Co. v. Riggs*, 672 F.2d 810 (4th Cir. 1982) (issue of whether pilot was flying below the minimum height required by federal regulations and therefore negligent per se was one for the jury); *King v. Avtech Aviation, Inc.*, 655 F.2d 77, 79 (5th Cir. 1981) (holding that the violation of FAA regulations "which require that the owner . . . be held primarily responsible for maintaining that aircraft in an airworthy condition" was not negligence per se); *Banko v. Continental Motors Corp.*, 373 F.2d 314 (4th Cir. 1966) (airplane engine manufacturer's compliance with FAA safety regulations was admissible and useful evidence on standard-of-care issue); *First of Am. Bank-Cent. v. United States*, 639 F. Supp. 446, 463 (W.D. Mich. 1986) (finding the negligence of the pilot was the sole cause of the crash, the court held that air traffic controllers are not required to anticipate or foresee negligent pilot actions); *Texasgulf Inc. v. Colt Elecs. Co.*, 615 F. Supp. 648, 660 (S.D.N.Y. 1984) (finding the pilot negligent in failing to report to controllers the loss of equipment, the court noted that "it is well-settled that the Federal Aviation Regulations shall have the force and effect of law, and violation of the FARs is evidence of negligence."), *aff'd sub nom. McKee v. Cort Elecs. Co.*, 849 F.2d 46 (2d Cir. 1988); *McDaniel v. United States*, 553 F. Supp. 910, 916 (N.D. Cal. 1982) (finding the pilot's negligence was the sole cause of the plane's crash into a mountain, the court noted that "[t]he [Airman's Information Manual] is evidence of the standard of care to which

quires the Secretary of Transportation and the FAA Administrator² to issue rules regulating the maintenance of civil aircraft, aircraft parts, and aircraft equipment.³ These rules and regulations, along with others issued by the FAA, are designated as the Federal Aviation Regulations (FARs). The first three volumes of Title 14, Aeronautics and Space, of the Code of Federal Regulations (C.F.R.) contain the FARs. The chapter and section numbering of the FARs and Title 14 of the C.F.R. are the same. For example, 14 C.F.R. section 43.13(b) corresponds to section 43.13(b) of the FARs and, similarly, 14 C.F.R. Part 145, Appendix A is the same regulation as Part 145, Appendix A of the FARs. The FAA distributes the FARs to the aviation community. The result of this distribution is that mechanics and pilots reference the FARs, while judges and lawyers reference Title 14 of the Code of Federal Regulations.

a pilot is held, and it is assumed that all pilots have read and are familiar with its provisions."'), *aff'd*, 710 F.2d 839 (10th Cir. 1983); *Allnutt v. United States*, 498 F. Supp. 832, 843-44 (W.D. Mo. 1980) (holding that "a violation of a federal aviation regulation does not state negligence as a matter of law under Missouri decisions" but is considered with all of the other evidence of negligence and proximate causation); *Baker v. United States*, 417 F. Supp., 471, 486-87 (W.D. Wash. 1975) (holding that the controller can rely on the assumption that the pilot knows all applicable Federal Aviation Regulations and will abide by them, and that the violation of these duties and responsibilities constitutes negligence per se); *see also* *Bruce v. Martin-Marietta Corp.*, 418 F. Supp. 829 (W.D. Okla. 1975) (compliance with regulations constitutes evidence of due care), *aff'd*, 544 F.2d 442 (10th Cir. 1976); *McGee v. Cessna Aircraft Co.*, 139 Cal. App. 3d 179, 188 Cal. Rptr. 542 (Ct. App. 1983) (violation of a federal aviation safety regulation shifts the burden of proof to the manufacturer in products liability cases). *But see* *Bonner v. United States Fire Ins. Co.*, 494 So. 2d 1331 (La. Ct. App.) (an endorsement to assure compliance with an economic regulation of the Civil Aeronautics Board does not create omnibus liability coverage), *cert. denied*, 497 So. 2d 1017 (La. 1986).

² "The Federal Aviation Administration is an administration in the Department of Transportation." 49 U.S.C. § 106(a) (1982). The FAA administrator carries out the "duties and powers of the Secretary [of Transportation] related to aviation safety . . ." 49 U.S.C. § 106(g)(1) (Supp. III 1985).

³ 49 U.S.C. app. § 1421 (1982). The codifiers of the United States Code have designated Title 49, Chapters 1-33, as Title 49 Appendix. 49 U.S.C. app. § 1421 (1982) is the same statute as 49 U.S.C. 1421 (1976).

A. *Maintenance Certificate Holders*

The FARs permit only the following individuals or facilities to "maintain, rebuild, alter, or perform preventative maintenance on an aircraft, airframe, aircraft engine, propeller, appliance, or component part"⁴ of any nonmilitary aircraft certified for operation in the United States:⁵

1. An FAA certified mechanic;
2. An FAA certified repairman;
3. A person working under the supervision of an FAA certified mechanic or repairman;
4. A pilot, but only for preventive maintenance;
5. An FAA certified repair station;
6. An aircraft or aircraft parts manufacturer; and,
7. An FAA certified air carrier, air taxi, or commercial operator of large or small aircraft.⁶

These categories are not mutually exclusive. For example, an airplane owned by a certified air carrier may be repaired at a certified repair station by an uncertified mechanic under the supervision of a certified mechanic or repairman.

1. *Airmen Certificates*⁷

a. *Certified Mechanics*

An individual mechanic may obtain a mechanic's certi-

⁴ 14 C.F.R. § 43.3(a) (1988).

⁵ *Id.* § 43.1.

⁶ *Id.* § 43.3(b). The FAA issues other certificates or designations to individuals involved in aircraft maintenance. These include the designated mechanic examiner (DME), who may accept applications as well as conduct the oral and practical tests necessary for issuing mechanic certificates, and the designated engineering representatives, who develop the technical data that mechanics and repairman follow in performing maintenance. *Id.* §§ 183.25, 183.29; see Special Federal Aviation Regulation § 36, 14 C.F.R. § 145 (1988).

⁷ "'Airman' means any individual who engages, as the person in command or as pilot, mechanic, or member of the crew, in the navigation of aircraft while under way; and . . . any individual who is directly in charge of the inspection, maintenance, overhauling, or repair of aircraft, aircraft engines, propellers, or appliances" 49 U.S.C. app. § 1301(7) (1982). In a field rich with gender neutral terms such as pilot, mechanic, aviator, air traffic controller, aircraft dispatcher, parachute rigger, and flight engineer, Congress classified all as airmen.

cate after receiving eighteen months of practical airframe or aircraft powerplant experience⁸, and after passing both an oral and a practical test.⁹ A mechanic's certificate designates either an airframe or a powerplant rating. The mechanic may obtain a mechanic's certificate with both the airframe and powerplant rating (A & P) after thirty months of concurrent airframe and powerplant experience.¹⁰ The mechanic with both an airframe and powerplant rating is informally referred to as an A & P mechanic, and is said to possess an A & P license or certificate.¹¹ A certified mechanic will remain certified with the appropriate rating, for as long as he or she stays actively engaged in aviation maintenance, provided the certificate is not revoked or suspended by the FAA.¹²

A certified mechanic "may perform or supervise the maintenance, preventative maintenance or alteration of an aircraft or appliance, or a part thereof, for which he is rated"¹³ except for a major repair or alteration of propellers or of flight instruments. If the mechanic is doing a maintenance procedure that he has not previously performed, he must perform the procedure under the supervision of a mechanic or repairman who has performed that same type of maintenance or alteration.¹⁴ After performing minor repairs or alterations, a certified mechanic with an airframe rating may approve an airframe for return to service and may perform the airframe portion of the 100-hour inspection required in Part 91 of the

⁸ 14 C.F.R. § 65.77 (1988).

⁹ *Id.* § 65.79.

¹⁰ *Id.* § 65.77.

¹¹ FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 65-11A, AIRFRAMES AND POWER-PLANT MECHANICS: CERTIFICATION INFORMATION 1 (1979) [hereinafter CERTIFICATION INFORMATION]. Properly the mechanic has a certificate, not a license, but both terms are used interchangeably. *Id.* at 10.

¹² See 14 C.F.R. § 65.83 (1988).

¹³ *Id.* § 65.81(a).

¹⁴ *Id.* Maintenance, preventative aircraft maintenance, appliance, major repair, major alteration, propeller, and instruments are all defined in 14 C.F.R. § 1.1 (1988). Major alterations, major repairs and preventive maintenance are further described in 14 C.F.R. pt. 43, app. A (1988); see also 14 C.F.R. § 43.3(b) (1988).

FARs.¹⁵ After performing minor repairs or alterations a certified mechanic with a powerplant rating may approve an aircraft engine or propeller for return to service, and may perform the powerplant or propeller portion of the 100-hour inspection required in Part 91 of the FARs.¹⁶

b. *Inspection Authorized Mechanic*

A mechanic who has had an A & P certificate for at least 3 years, and has actively worked as an A & P mechanic for 2 years, may obtain an inspection authorization¹⁷ if he or she passes the appropriate written test and other prerequisites.¹⁸ A mechanic with an inspection authorization is informally referred to as an IA, or IA mechanic, and possesses an IA certificate or license.¹⁹ Unlike the mechanic's certificate, the inspection authorization must be renewed annually.²⁰ The IA mechanic may inspect and approve for return to service any aircraft, related part or appliance after major repair or alteration, and may also perform the annual inspection or the progressive inspection required on all aircraft.²¹

c. *Certified Repairmen*

Certain individuals with specialized skills (for example, an airframe or ergon-heliarc welder or electronics technician) who is employed as a shop foreman or supervisor by a certified repair station, commercial operator, or air carrier, may be designated as repairmen.²² The Airworthi-

¹⁵ 14 C.F.R. § 65.85 (1988); see *infra* notes 139-142 and accompanying text for a discussion of the meaning of the phrase "approve for return to service"; see also 14 C.F.R. § 43.7(b).

¹⁶ 14 C.F.R. § 65.87 (1988); see also *id.* § 43.7(b).

¹⁷ *Id.* § 65.91(c); cf. Administrator v. Whetsel, NTSB Order No. EA-2110 (Dec. 13, 1984) (FAA refused to renew the inspection authorization of a mechanic after the A & P suspension ends).

¹⁸ 14 C.F.R. § 65.91(c)(5) (1988).

¹⁹ See, e.g., Administrator v. Woods, NTSB Order No. EA-2493 (Mar. 18, 1987) (FAA suspended respondent's IA for ten months for violating sections 43.13 and 43.15 of 14 C.F.R.).

²⁰ 14 C.F.R. §§ 65.92, 65.93 (1988).

²¹ *Id.* § 65.95; see also *id.* §§ 43.7(b), 43.13, 43.15.

²² *Id.* §§ 65.101, 145.41, 91.172; FEDERAL AVIATION ADMINISTRATION, DEPT OF

ness Inspector's Handbook states that "[r]epairman certificates and ratings should be reserved for applicants having special talents and skills and should not be issued to circumvent obtaining a mechanic certificate with appropriate ratings."²³ "A certified repairman may perform or supervise the maintenance, preventive maintenance, or alteration of an aircraft or aircraft component appropriate to the job for which the repairman was employed."²⁴ For each job performed, the repairman must understand both the procedures of his employer and the manufacturer's instructions for continued airworthiness.²⁵ Individuals who build their own aircraft may also receive a repairman certificate with the designation experimental aircraft builder.²⁶ "These repairmen . . . are not employed by a repair station."²⁷ The experimental aircraft builder repairman may perform inspections on the aircraft that he or she rebuilt.²⁸

d. *Uncertified Mechanics*

Uncertified mechanics may perform maintenance on aircraft under the supervision of a certified mechanic or repairman.²⁹ "While an unlicensed mechanic *may* require closer supervision, it by no means follows that he or she will inevitably require constant supervision or be unable

TRANSPORTATION, ORDER NO. 8300.0, AIRWORTHINESS INSPECTOR'S HANDBOOK 860 (1985) [hereinafter INSPECTOR'S HANDBOOK]; see also 14 C.F.R. §§ 91.171, 91.172 (1988).

²³ INSPECTOR'S HANDBOOK, *supra* note 22, at 860. The FAA Orders are internal directives issued by the FAA's Washington, D.C. headquarters. The current directives are for sale by the Document Inspection Facility, a section of the Public Inquiry Staff at FAA headquarters. The pamphlet, titled "Guide to Federal Aviation Administrative Publication", explains how to obtain these directives and other FAA publications. For free copies of this pamphlet write to: U.S. Department of Transportation, M-443.2, Washington D.C. 20590 and request ten or less copies of FAA-APA-PG-10. Outdated FAA Orders can be ordered from the FAA pursuant to the Freedom of Information Act. 49 C.F.R. pt. 7, app. C (1986).

²⁴ 14 C.F.R. § 65.103(a) (1988).

²⁵ *Id.* § 65.103(b).

²⁶ *Id.* § 65.104.

²⁷ INSPECTOR'S HANDBOOK, *supra* note 22, at 879.

²⁸ 14 C.F.R. § 65.104(b) (1988).

²⁹ *Id.* § 43.3(d).

or unlikely to perform as competently as a licensed mechanic.”³⁰ The responsibility of a certified mechanic for the work of others will be discussed in Part II of this article.³¹

e. *Pilots*

A pilot may perform preventative maintenance on any noncommercial aircraft (in limited cases commercial aircraft) he or she owns or operates.³² That pilot may also approve noncommercial aircraft for return to service after performing such preventative maintenance.³³ “‘Preventative maintenance’ means simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations”³⁴ as described in Part 43, Appendix A(c) of the FARs. Otherwise the term “maintenance”, as defined in the FARs, specifically excludes preventative maintenance.³⁵ Other than preventative maintenance, a pilot without a mechanic’s certificate may only do maintenance on his or her aircraft under the supervision of a certified mechanic.³⁶

2. *Repair Facilities*

a. *Certified Repair Stations*

A repair station certificate may be issued to a domestic repair station, a foreign repair station, or a manufacturer’s maintenance facility.³⁷

(1). *Domestic Repair Stations*

“A certified repair station located in the United States is

³⁰ Administrator v. Alphin, NTSB Order No. EA-2008, 5 (May 31, 1984) (emphasis added); see *infra* note 165 for a discussion of the history of the *Alphin* litigation.

³¹ See *infra* notes 161-167 and accompanying text.

³² 14 C.F.R. § 43.2(g),(h) (1988).

³³ *Id.* § 43.7(f).

³⁴ *Id.* § 1.1.

³⁵ *Id.*

³⁶ Administrator v. Nunn, 2 N.T.S.B. 1802 (1975).

³⁷ 14 C.F.R. § 145.1 (1988).

called a 'domestic repair station.' ”³⁸ Any repair facility in the United States may apply to receive a designation as a certified repair station.³⁹ At a minimum, the application must include a copy of the repair station's inspection procedures manual⁴⁰ and a list of maintenance functions which the repair station intends to perform.⁴¹ The repair station must demonstrate that it has suitable housing, tools, and equipment,⁴² as well as qualified personnel,⁴³ to perform the intended maintenance. “Each person who is directly in charge of the maintenance functions of a [domestic] repair station must be appropriately certified as a mechanic or repairman.”⁴⁴

The FAA assigns the repair station's ratings which specify the types of operations a repair station may perform under its certificate.⁴⁵ There are four classes of airframe ratings, three classes of powerplant ratings, two classes of propeller ratings, three classes of radio ratings, four classes of instrument ratings, and three classes of accessory ratings.⁴⁶ For example, a repair station certificate may be issued with an airframe class three rating and a radio class one rating. An airframe class three rating authorizes repairs of all metal airframes on small aircraft. A radio class one rating authorizes repair of the radio transmitting and receiving equipment, compared to radio class two, navigational equipment and radio class three, radar equipment. In addition, the repair station may be issued a rating limited to only certain types or makes of aircraft or aircraft parts.⁴⁷ For example, a repair station may only be

³⁸ *Id.* § 145.1(b).

³⁹ See generally 14 C.F.R. pt. 145 (1987); INSPECTOR'S HANDBOOK, *supra* note 22, at 489-548 (outlines the procedures for an application for and issuance of a repair station certificate).

⁴⁰ 14 C.F.R. § 145.11(a)(3) (1988).

⁴¹ *Id.* § 145.11(a)(3).

⁴² *Id.* §§ 145.35, 145.37.

⁴³ *Id.* § 145.39.

⁴⁴ *Id.* § 145.39(d).

⁴⁵ *Id.* § 145.11(b).

⁴⁶ *Id.* § 145.31; INSPECTOR'S HANDBOOK, *supra* note 22, at 507-17 (repair station ratings).

⁴⁷ 14 C.F.R. § 145.33 (1988).

authorized to perform airframe repairs of a Douglas Model DC-3 series, or a Grumman Model G 149 series, airplane.⁴⁸

Although certain repairs and inspections must be performed only by a specialized certified repair station,⁴⁹ most repairs and inspections may be done by any certified mechanic or inspection authorized mechanic (IA), whether or not the mechanic is working alone or at a repair station.⁵⁰ Since a repair station employs certified mechanics and certified repairmen, an aircraft or aircraft part serviced at that repair station may be approved for return to service under either an individual mechanic's or repairman's certificate or under the station's certificate. In fact, a repair station may allow its own properly certified mechanic to perform a maintenance procedure for which that repair station is not certified.⁵¹

As a result, a repair station that has lost its repair station certificate may still be able to repair and return an aircraft to service under the A & P's and IA's certificates. If the FAA wishes to punish only minor violations of the FARs by a repair station, it can suspend the repair station certificate knowing that the direct economic impact will be lessened by the ability of the repair station's employees to repair and approve for return to service aircraft under their own certificates.⁵² However, if the FAA wishes to

⁴⁸ See, e.g., INSPECTOR'S HANDBOOK, *supra* note 22, at 539.

⁴⁹ See, e.g., 14 C.F.R. § 91.172(c) (1988); FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 145-2, REPAIR STATION LIMITED RATINGS BEECH 18 SERIES AIRCRAFT (1976). "The purpose of this advisory circular is to advise of a required limited repair station rating to perform X-ray inspection of the Beech 18 . . . and procedures for application." *Id.* at 1.

⁵⁰ 14 C.F.R. § 43.7 (1988).

⁵¹ Administrator v. Aircraft Engine Maintenance Corp., 3 N.T.S.B. 3051, 3053 (1980).

⁵² See FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ORDER NO. 2150.3 COMPLIANCE AND ENFORCEMENT PROGRAM 17-18 (1980) [hereinafter FAA COMPLIANCE AND ENFORCEMENT].

(a) Effect of loss of certificate. The sanction selected should, for example, reflect the difference between an aircraft and powerplant mechanic, who only uses the certificate to occasionally maintain a privately owned aircraft, from a working mechanic who depends on airline employment as a sole source of income. At the same time,

shut down a repair station completely, it will revoke both the repair station's certificate and the mechanics' certificates of the repair station's employees.⁵³ "A domestic repair station certificate or rating is effective until it is surrendered, suspended or revoked."⁵⁴

(2). *Foreign Repair Stations*

A certified repair station located outside the United States is called a "foreign repair station."⁵⁵ A foreign repair station repairs United States civilian aircraft used in operations outside the United States.⁵⁶ A foreign repair station may have the same ratings and classes as a domestic repair station⁵⁷ and is generally subject to the same requirements as a domestic repair station,⁵⁸ except that the foreign repair station's supervisory mechanics are not required to possess FAA certificates.⁵⁹

(3). *Manufacturer's Maintenance Facilities*

The FAA will issue a repair station certificate with limited ratings to a manufacturer of an aircraft or aircraft part. This certificate authorizes that manufacturer to maintain or approve for return to service any aircraft or aircraft part that it manufactures. Certified mechanics or repairmen must be employed directly in charge of that maintenance.⁶⁰

care must be taken to avoid ineffective certificate action in cases where a suspension will have no practical impact on the certificate holder because of that certificate holder's ability to satisfy the action during leave, standby, or period of low activity.

Id. at 18.

⁵³ See, e.g., *Administrator v. Air East, Inc.*, 2 N.T.S.B. 870 (1974).

⁵⁴ 14 C.F.R. § 145.17(a) (1988).

⁵⁵ *Id.* § 145.1(b).

⁵⁶ *Id.* § 145.73(a).

⁵⁷ *Id.* §§ 145.71, 145.73(b).

⁵⁸ *Id.* § 145.77.

⁵⁹ *Id.* § 145.75 (1987).

⁶⁰ *Id.* §§ 145.101, 145.103, 145.105.

b. *Air Carriers and Other Operating Certificate Holders*

"The holder of an air carrier operating certificate or an operating certificate issued under [FAR] Part 121 [domestic, flag, and supplemental air carriers and large commercial operators of large aircraft], Part 127 [scheduled air carriers with helicopters], or Part 135 [air taxi operators and commercial operators], may approve an aircraft, airframe, aircraft engine, propeller, appliance or component part for return to service."⁶¹ These commercial operators are each responsible for their own maintenance programs; and although they may contract out certain maintenance functions, they still have primary responsibility for the maintenance of their aircraft.⁶²

Two unique features of the commercial operators are (1) inspection functions associated with maintenance must be separated from the other maintenance, preventative maintenance, and alteration functions of the organization;⁶³ and (2) the commercial operator must develop and use a maintenance manual which specifies the methods of performing routine and nonroutine maintenance and the separate inspection program.⁶⁴ The supervisors directly in charge of maintenance functions of a commercial operator must be appropriately certified as mechanics or repairmen.⁶⁵

A repair station performing maintenance work on a Part 121 or Part 127 air carrier, or other commercial operator, must comply with the same standards as that operator must comply with for the work performed. This includes separating the inspection from other maintenance functions and following the commercial operator's maintenance manual.⁶⁶

⁶¹ *Id.* § 43.7(c); *see also id.* §§ 121.379(b), 127.140(b), 135.437(b).

⁶² *Id.* §§ 121.363, 127.131, 135.413 (1988).

⁶³ *Id.* §§ 121.365(c), 127.132(c), 135.423(c).

⁶⁴ *Id.* §§ 121.369, 127.134, 135.427.

⁶⁵ *Id.* §§ 121.378, 127.139, 135.435.

⁶⁶ *Id.* § 145.2; INSPECTOR'S HANDBOOK, *supra* note 22, at 619-20; *see also* 14 C.F.R. § 43.13(c) (1988).

B. *The Federal Aviation Administration Inspectors*

The FAA employs aviation safety inspectors who "develop, administer, and enforce regulations and standards concerning civil aviation safety" ⁶⁷ Some writers describe these aviation inspectors as aviation police. ⁶⁸

The three types of aviation safety inspectors are operations, manufacturing and airworthiness. Operations inspectors inspect and evaluate the training and performance of pilots and other flying airmen, as well as the operations programs of airlines and other commercial operators. Manufacturing inspectors inspect and evaluate the design and production of aircraft, aircraft parts, and avionic equipment. ⁶⁹ Airworthiness inspectors develop the regulations and safety standards concerning the maintenance of aircraft and related systems. They evaluate and inspect mechanics and repair facilities, mechanic training programs, and air carrier maintenance programs. They inspect aircraft and related systems to ensure proper maintenance. ⁷⁰ It is the airworthiness inspectors who are involved in most enforcement action against mechanics and repair facilities. Airworthiness inspectors are classified as general aviation airworthiness inspectors or as air carrier airworthiness inspectors. ⁷¹ There is a special subclass of airworthiness inspectors that concern themselves only with avionics. ⁷²

Recently, the FAA headquarters consolidated the Gen-

⁶⁷ FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, AVIATION CAREER SERIES: GOVERNMENT 5 [hereinafter FAA AVIATION CAREER]. This pamphlet may be obtained by sending a self addressed mail label with a request to Documents, Retail Distribution Division Consigned Branch, 8610 Cherry Lane, Laurel, MD 20707. See also 49 U.S.C. app. § 1425(b) (1982).

⁶⁸ See, e.g., Hamilton, *Administrative Practice Before the FAA and NTSB: Problems, Trends and Developments*, 46 J. AIR L. & COM. 615 (1981); Mattis, *The Traffic Cop of the Skies — FAA Enforcement Actions*, 35 J. AIR L. & COM. 40 (1969).

⁶⁹ FAA AVIATION CAREER, *supra* note 67, at 5-8.

⁷⁰ *Id.* at 7.

⁷¹ *Id.* at 6.

⁷² Avionics includes the following equipment: radio and radar; navigational systems; fire detection and warning systems; pilot and static systems, and associated instrumentation; audio systems; automatic control systems such as autopilots; auto-throttles; and any equipment defined as instruments in section one of the

eral Aviation Transportation Branch, the Commercial Air Transportation Branch and the Avionics Branch into the Aircraft Maintenance Division. The Air Carrier Airworthiness Inspector's Handbook and the General Aviation Airworthiness Inspector's Handbook were consolidated into one Airworthiness Inspector's Handbook.⁷³ This is indicative of a trend which blurs the distinction between air carrier and general aviation airworthiness inspectors,⁷⁴ although the avionic subcategory is still maintained.⁷⁵

Most of the airworthiness inspectors are dedicated and hardworking with many years of aviation experience. The attorney representing a mechanic or air facility, however, should never assume that these inspectors have a complete understanding of the relevant sections of the FARs or that these inspectors are as up to date about aircraft maintenance procedures as they appear to be. Airworthiness inspectors are often years removed from "hands on" mechanical experience, buried instead in the complex paperwork needed to track the aviation industry. Airworthiness inspectors must perform the following duties: (1) conduct general safety seminars and special meetings; (2) obtain and review aircraft maintenance and alteration records; (3) coordinate proposed airworthiness directives; (4) survey fueling facilities; (5) cooperate with foreign governments in issuance of foreign airworthiness certificates; (6) serve on type certification boards; (7) approve major repairs and alterations; (8) check aircraft parts; (9) inspect maintenance records; (10) do import and export airworthiness approvals; (11) issue special flight permits; (12) process applications for repair station certificates; (13) inspect and approve repair station inspection manu-

FARs, such as flight or voice recorders. INSPECTOR'S HANDBOOK, *supra* note 22, at 6041.

⁷³ *Id.* at 1.

⁷⁴ See, e.g., *Reductions in the Federal Aviation Administrations Airline Work Force and the Implications for Airline Safety: Hearings Before the Subcomm. on Aviation at the House Comm. on Public Works and Transportation*, 98th Cong., 1st Sess., 129 CONG. REC. D1520 (daily ed. Nov. 10, 1983) (statement of J. Lynn Helms, Administrator FAA).

⁷⁵ INSPECTOR'S HANDBOOK, *supra* note 22, at 6041, 6081.

als, equipment, and personnel records; (14) assist in the certification and surveillance of pilot schools; (15) certify and inspect parachute equipment; (16) certify and inspect aviation maintenance technician schools, including a review of the instruction and equipment; (17) track the certification of mechanics and inspection authorized mechanics (A & P, IA); (18) renew yearly IA certificates; (19) certify repairmen and experimental aircraft builders; (20) certify and inspect designated mechanic examiners (DME); (21) participate in the annual aviation mechanic safety award and flight instructor of the year award programs; (22) renew and approve maintenance manuals; (23) review contractual arrangements for maintenance and overhaul of air carrier's aircraft; (24) conduct aircraft reliability programs; (25) issue ferry permits; (26) review approved supervisors' lists for repair stations and air carrier operations; (27) develop minimum equipment lists; (28) review monthly air carrier and engine utilization reports; (29) review air carrier maintenance procedures manuals; (30) review air carrier maintenance and inspect personnel duty time limitations; (31) oversee air carrier maintenance and personnel training; (32) perform spot and ramp inspections; (33) perform en route inspections; (34) temporarily ground air carrier aircraft when required; (35) certify and survey Parts 121, 125, 127, and 135 of the commercial operators' inspection and maintenance program; and (36) inspect to ensure that private operators and pilots comply with either an annual and 100-hour inspection, or with an approved progressive inspection program.⁷⁶

The airworthiness inspectors also testify at hearings and trials, and participate in all the mandatory training that the federal government imposes on its employees. Many of the more capable and experienced inspectors are promoted into supervisory, management or training positions with additional responsibilities.

⁷⁶ See generally, *INSPECTOR'S HANDBOOK*, *supra* note 22.

With the Airline Deregulation Act of 1978⁷⁷ the volume of work for the individual inspector has increased. Between 1978 and 1984, the number of airlines more than doubled, and the number of airplanes used by an airliner increased from 3000 to 4200. During that same period, however, the number of FAA inspectors was cut by a third, from 2000 to 1332.⁷⁸ The FAA has taken measures to rebuild its inspector forces through increased hiring. It will be many years, however, before these new inspectors become effective. The Government Accounting Office (GAO) states that the inspector training program, which is inadequate at best, will be unable to handle the influx of these new inspectors.⁷⁹ As a result of the bureaucratic de-

⁷⁷ 49 U.S.C. § 1301 (1986).

⁷⁸ United States General Accounting Office, Press Release, Statement of Herbert R. McLure, Before the Subcommittee on Aviation of the House Committee on Public Works and Transportation: FAA's Airlines Inspection Program (May 14, 1986) [hereinafter McLure Report] (statement of Herbert R. McLure, Associate Director Resources, Community and Economic Development Division of Government Accounting Office).

⁷⁹ McLure Report, *supra* note 78 at 10-12, discusses the problems the FAA has with its FAA inspector training programs.

Inspectors often do not receive either mandatory or recommended training before being assigned to perform inspections. For example, our analysis of training records for 17 inspectors in FAA's Northwest Mountain Region showed that none of them had received all of the training needed to properly ensure airline compliance with FAA's safety regulations. Although other studies have found similar training problems, FAA does not know the extent of its training backlog

Similarly, new inspectors may not receive needed training. To increase its inspector work force and replace inspectors lost through attrition, FAA plans to hire about 700 new inspectors in the next 2 years. They will comprise over one-third of its inspector work force. This comes at a time when FAA studies — as well as NTSB investigations and our review — have all demonstrated serious weaknesses in FAA's hiring and training of inspectors. Some FAA inspectors, therefore, are not sufficiently qualified, according to FAA's own standards, to carry out their assigned duties. . . . In addition, an FAA study found that on-the-job training, considered by FAA to be an integral part of an inspector's development, often amounts to little more than unsupervised reading of regulations and handbooks. The study found that this is because the heavy work load in many district offices prevents experienced inspectors from spending the considerable time required to provide new trainees with personalized instruction and supervision. This problem is compounded by

mands on the inspector's time and the turbulence in the inspectors' rank, airworthiness inspectors are unable to maintain their mechanical and technical skills. Therefore, many inspectors have an unsure grasp of the FARs and of the evidence required to prove improper maintenance.

To compound the difficulty, airworthiness inspectors in different regions interpret and apply the FARs differently. A report prepared by the Department of Transportation for the former Secretary of Transportation, Elizabeth Dole, concluded that the "FAA headquarters lacks a broad, national view of the agency's mission and programs and appears, at times, divorced, both geographically and programmatically from the field offices. . . . [T]here is a lack of consistency in interpretation and application [of the FARs]."⁸⁰

At times, the FAA inspectors and the FAA lawyers will

the fact that FAA has a number of inspectors who, not having received all the mandatory or recommended training themselves, may not be in a position to adequately train new inspectors.

FAA's regulations and handbook have themselves been found to be obsolete, incomplete, or ambiguous, and have resulted in inconsistent interpretation and application of regulations. Meanwhile, studies have found that inspector supervision has languished because of inadequate guidance, staff shortages, and the low priority given this responsibility by FAA management.

While FAA has initiated actions to improve its hiring and training practices and to revise its regulations and improve its guidance to inspectors and their supervisors, some of its initiatives are years away from fruition. FAA's plans do not even call for studies in these areas to be completed before 1987-88, let alone full implementation of what the studies recommend. As a result, most will not be in place before FAA hires another 700 inspectors.

In our opinion, the lack of experience within the inspector force may, in turn, adversely affect FAA's inspection effectiveness. By fiscal year 1988, about 40 percent of FAA's inspectors will have less than 3 years experience. According to FAA, it takes between 2 and 4 years for a new inspector to become fully effective.

Id.

⁸⁰ U.S. DEPARTMENT OF TRANSPORTATION, OFFICE OF THE SECRETARY OF TRANSPORTATION, REPORT OF THE SAFETY REVIEW TASK FORCE ON FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SAFETY PROGRAM 3 (1985) [hereinafter TASK FORCE REPORT].

Lack of uniformity in the implementation of FAA safety programs was brought to the attention of the Task Force during the course of meetings with representatives of industry organizations and con-

ignore guidelines laid down by the FAA. For example, in a recent case the FAA ordered an emergency suspension of a Part 121 operator's certificate because the operator videotaped FAA inspectors during an on site record inspection.⁸¹ The FAA Compliance and Enforcement Handbook specifically states that the emergency suspension order should only be issued when the certificate holder lacks the necessary qualifications to hold the certificate, and it is clear the certificate holder will continue to use the certificate in an unsafe manner.⁸² Nothing in the record suggests that the operator's action demonstrated lack of qualifications to hold an air carrier operating certificate. The FAA inspectors and attorneys chose the emergency sanction to punish the operator for videotaping the inspectors. This is in violation of the regulation in

sumer safety organizations. The Task Force is not the first entity to address this issue.

Industry/consumer comments in the area of uniform interpretation of regulations and policies revealed a perception that FAA headquarters lacks a broad, national view of the agency's mission and programs and appears, at times, divorced, both geographically and programmatically from the field offices. Several industry spokesmen expressed the opinion that while FAA regulations may be clear, there is a lack of consistency in interpretation and application. The NATI [National Air Transportation Safety Board — an FAA internal organization or task force created to address FAA enforcement problems] seemed to confirm some of the industry perceptions. The NATI report points out that "[t]he decentralized solution to what may be potentially broad-based problems has led to a lack of standardization in the application of policy. The NATI participants . . . observed a number of instances of nonstandard application of policies and practices."

Id. The Task Force made the following recommendations:

That, to improve uniformity among regions, the FAA expedite the review of regional interpretations and implementation of FAA regulations and policies, to include public hearings or meetings with industry and public interest representatives on the subject of regional variation in interpretation and implementation of regulations and policies. . . . That the FAA establish procedures to achieve more uniform interpretation and application of its inspection and certification requirements.

Id.

⁸¹ *Administrator v. Conner Air Lines, Inc.*, NTSB Order No. EA-2335 (June 2, 1986) (order of suspension reversed by the NTSB).

⁸² FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 16-17.

the Compliance and Enforcement Handbook against the use of emergency sanctions for punitive reasons.⁸³

Although the individual airworthiness inspector may present an aura of expertise, an attorney willing to examine the FAA evidence in detail, comparing it to expert testimony, to accepted industry standards, and to the standards embodied in the FARs as interpreted by the NTSB, might be able to puncture the aura and discover the shortcomings in an FAA investigation. During the last five years, our firm represented mechanics or repair stations in six different FAA enforcement actions. The mechanics or repair stations prevailed each time because the FAA inspector either performed an improper investigation, or the regulation alleged to be violated was so vague as to be nearly unenforceable.

In two cases, FAA inspectors conducted improper tear-down inspections of overhauled or rebuilt engines. Such improper action is not necessarily the fault of the individual FAA investigators. An FAA inspector needs specific guidelines on how to properly perform a teardown inspection. The inspection requires the skills of a mechanic who regularly performs maintenance on the type of engine inspected, of a mechanical or aeronautical engineer experienced in material engineering, of an attorney who understands technical evidence, in addition to several free weeks to perform and evaluate the teardown. An exhaustive search of FAA literature, however, including FAA directives and the approximately 8,000 page Airworthiness Inspector's Handbook, did not uncover any guidelines of how to do a teardown inspection on an aircraft engine.

The attorney should not presume, however, that a little preparation will allow him to show up an FAA inspector. An inspector will probably have more experience with the relevant procedures and sections of the FARs than an at-

⁸³ *Id.* at 16. "Emergency action in suspending or revoking a certificate . . . should be taken [only] when it is clearly needed in the public interest . . ." *Id.* "An emergency suspension or revocation should never be used for punitive reasons." *Id.* at 173.

torney with extensive flight experience. Additionally, the attorney should not underestimate the weight of credibility and expertise a trier of fact ascribes to even poorly trained airworthiness inspectors. A recent article in the ABA Journal noted:

The risk of confusion is probably the most important burden in a trial Even though you have introduced all the necessary evidence and have met all the formal burdens, you will not prevail if you have not overcome the risk of confusion. It is a practical burden imposed by all fact-finders. They instinctively put the obligation of making things clear on one of the parties. The one who bears the risk of confusion is usually the one who has the obligation to persuade . . . but not always.⁸⁴

Although in FAA enforcement actions the burden of proof is on the FAA, in maintenance cases the risk of confusion is often on the defendant mechanic or repair station. If the defense attorney fails to puncture the FAA case and neither side clearly prevails at the hearing, the trier of fact will often rule against the defendant by reasoning that the FAA inspector, unlike the defendant, is an impartial witness. The defendant prevails only if their attorney is adequately prepared to educate the fact-finder on the FARs and is prepared to present the technical evidence in a clear and organized fashion.

C. *FAA Enforcement Actions*

The FAA uses a broad arsenal of tools to enforce compliance with, and punish violations of, the FARs. The FAA may take administrative action against a mechanic or repair facility by sending the violator a "warning" letter or "letter of correction."⁸⁵ The FAA may take "legal enforcement action" by refusing to grant or renew certificates, suspending or revoking existing certificates, imposing civil fines, seizing aircraft, and issuing orders of

⁸⁴ McElhaney, *The Risk of Confusion*, A.B.A. J., Jan. 1988, at 100.

⁸⁵ 14 C.F.R. § 13.11(b) (1988); FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 141.

compliance, cease and desist orders, orders of denial, and other orders.⁸⁶ The FAA may also obtain federal court injunctions in order to enforce its orders.⁸⁷ The most important actions, however, are the civil penalty and certificate actions.

1. *Civil Penalty Actions*

Pursuant to the Federal Aviation Act, the FAA may impose a civil penalty not to exceed \$1,000 for each violation of the Federal Aviation Act or FARs.⁸⁸ If the violation is of a continuing nature, the \$1000 penalty may be imposed for each day of the violation.⁸⁹ The FAA may reduce the penalty if the certificate holder is willing to compromise.⁹⁰ If the certificate holder refuses to pay the fine, the case is turned over to the local United States Attorney who files a civil action for enforcement of the penalty in the appropriate federal court of appeals.

2. *Certificate Proceedings*

Pursuant to the Federal Aviation Act, the FAA may suspend or revoke any certificate issued by the FAA, including the mechanic and repair station certificate.⁹¹ The certificate holder may appeal the FAA action to the National Transportation Safety Board (NTSB). In most cases, the appeal stays the FAA action. The mechanic or air repair station may exercise the full privileges of their

⁸⁶ 14 C.F.R. Pt. 13, Subpart C (1988); FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 14-16.

⁸⁷ 14 C.F.R. § 13.25 (1988).

⁸⁸ 49 U.S.C. app. § 1471(a)(1) (1982 & Supp. III 1985); 14 C.F.R. § 13.15 (1988).

⁸⁹ 49 U.S.C. app. § 1471(a)(1) (1982 & Supp. III 1985). Violations of a continuing nature produce the large highly publicized fines imposed by the FAA on major airlines. *See United States v. Intercon Leasing, Inc.*, 617 F. Supp. 323, 329 (S.D. Fla. 1985) (court imposes civil penalties of \$1000 per day for a total amount of \$1,950,000 on a corporation, and on the president of that corporation, for failure to turn over requested maintenance records to the FAA).

⁹⁰ 49 U.S.C. app. § 1471(a)(2) (1982 & Supp. III 1985); 14 C.F.R. § 13.15(b) (1988).

⁹¹ 49 U.S.C. app. § 1429(a),(b) (Supp. III 1985); 14 C.F.R. § 13.19 (1988).

certificate during the appeal process.⁹² The NTSB may either amend, modify or reverse the FAA action.

In an emergency situation, the FAA may immediately suspend the contested certificate, and the certificate holder does not have the privilege of using their certificate during the appeal process.⁹³ In 1984, approximately twelve percent of the certificate suspension or revocation actions were designated emergency situations by the FAA.⁹⁴ Emergency situations are declared only if there is an immediate safety threat to the public.⁹⁵ An example of an emergency situation is when the holder of a repair station certificate returns an unairworthy aircraft to service without an inspection that ensures satisfactory quality control.⁹⁶ The NTSB takes the position that the FAA's decision to invoke emergency procedures is not reviewable.⁹⁷ In order to expedite an emergency appeal, the NTSB considers the case within sixty days after receipt of notice of the appeal.⁹⁸

After receiving notice of an appeal, the NTSB assigns an administrative law judge to conduct a preliminary evidentiary hearing.⁹⁹ The administrative law judge conducts the hearing and issues an initial decision upholding, modifying, or reversing the FAA action. Either party may appeal the initial decision to the National Transportation Safety Board.¹⁰⁰ The Board may: (1) uphold, reverse, or

⁹² 49 U.S.C. app. § 1429(a) (Supp. III 1985); 14 C.F.R. § 13.19(d) (1988).

⁹³ 14 C.F.R. § 13.19(d) (1988).

⁹⁴ 1984 NTSB ANN. REP. 48. "The judges closed 570 cases — 234 after a full hearing on the merits and 336 by order terminating the proceeding. Sixty-eight emergency cases were filed and concluded." *Id.*

⁹⁵ FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 16.

⁹⁶ *Id.*

⁹⁷ *Administrator v. Morton*, 2 N.T.S.B. 1321, 1326 (1975); *Air East*, 2 N.T.S.B. at 881. See generally *Nevada Airlines, Inc. v. Bond*, 622 F.2d 1017 (9th Cir. 1980) (outlines the circumstances when a federal circuit court, not a district court, may stay an emergency action).

⁹⁸ 49 U.S.C. app. § 1429(a) (1982); 14 C.F.R. § 13.19(d) (1988); see also 49 C.F.R. §§ 821.54, 821.57 (1987) (describing the seven procedures for an appeal).

⁹⁹ 49 C.F.R. § 821.35 (1987).

¹⁰⁰ 49 C.F.R. § 821.47 (1987). The National Transportation Safety Board consists of five members appointed by the President, with the advice and consent of the Senate. 49 U.S.C. app. § 1902 (1982). The Board is assisted by a staff which

modify the initial decision of the administrative law judge; (2) make new findings and issue a new order; or (3) remand the case to the administrative law judge for further proceedings.¹⁰¹ The decisions are published and the Board routinely uses earlier decisions as precedence for later certificate actions.¹⁰² If the certificate holder is dissatisfied with the final decision of the Board, he or she may seek a review of the Board's decision in the appropriate federal appellate court.¹⁰³ The FAA, however, cannot appeal to the federal appellate court from an NTSB decision.

3. *Civil Penalty or Certificate Action*

Legal enforcement by civil penalty and certificate action are completely independent systems. The federal district courts have no authority to review the certification actions of the FAA.¹⁰⁴ The NTSB has no authority to impose monetary fines for violations of the Federal Aviation Act or FARs, even if such action is requested by the certificate holder in lieu of a suspension.¹⁰⁵ The FAA may bring both a civil and a penalty action against the certificate

performs functions delegated to them by the Board. Often the phrase National Transportation Safety Board or NTSB is used to refer to both the five member Board and their support staff. In this article, however, the term "Board" refers to the five member panel, and the term "NTSB" refers generally to the Board and their support staff.

¹⁰¹ See 49 C.F.R. § 821.49 (1987).

¹⁰² 49 C.F.R. § 801.42; 49 C.F.R. pt. 801 (1987) (public availability of information). The NTSB decisions issued between April 1, 1967 and December 31, 1981 are published in the National Transportation Safety Board Decisions, volumes one through three. NTSB decisions issued after April 1, 1982 are published in soft bound covers and distributed by the National Technical Information Service, Springfield, VA 22161. Before April 1, 1967, these appeals were heard by the Civil Aeronautics Board and were published in the Civil Aeronautics Board Reports. The NTSB decisions are indexed by Hawkins National Transportation Service, Hawkins Publishing Co., Mayo, Maryland. The fourth volume of the National Transportation Safety Board Decisions is planned to be released in the latter part of 1988 and the fifth sometime afterward.

¹⁰³ 49 U.S.C. app. §§ 1486, 1903(d) (1982); 49 C.F.R. § 821.64 (1987).

¹⁰⁴ *Nevada Airlines, Inc.*, 622 F.2d at 1020; *Administrator v. Ribler*, 3 N.T.S.B. 1394, 1395 (1978).

¹⁰⁵ *Administrator v. Wilson*, NTSB Order No. EA-1903 (May 25, 1983); *Administrator v. Roach*, NTSB Order No. EA-1886 (Mar. 7, 1983); *Administrator v.*

holder for the same violation.¹⁰⁶ It is the FAA policy, however, that a civil penalty action and a punitive certification action generally will not be instituted against a certificate holder for the same offense.¹⁰⁷

The FAA may settle a legal enforcement action by substituting a civil penalty for a proposed suspension, or by substituting a combination of a civil penalty and reduced period of suspension, for a long period of suspension or revocation. An attorney considering such a compromise should make certain that the terms of the settlement are clear to all parties.¹⁰⁸ The attorney should also be aware of how an agreement to pay or submit to penalties will affect the client's ability to renew or receive future certificates,¹⁰⁹ as well as the effect any such penalty will have on any future enforcement actions.¹¹⁰ However, as a practical matter, the FAA rarely compromises a certificate action.

The FAA makes the decision of whether to pursue a civil penalty action or a certificate action. "It is the [FAA] inspector's responsibility to initially recommend the appropriate [legal] enforcement action."¹¹¹ The "Regional Counsel will make an independent determination as to an appropriate type of legal enforcement action"¹¹² Once legal enforcement action is initiated, "the Regional Counsel has the final authority to change the type of action or sanction, or enter into settlement agreement."¹¹³

Cartwright, 3 N.T.S.B. 1588 (1979); *see also* Administrator v. Hegner, NTSB Order No. EA-2138 (Feb. 25, 1985).

¹⁰⁶ Ribler, 3 N.T.S.B. at 1394; *see also* Administrator v. Mitchem, NTSB Order No. EA-1867 (Feb. 14, 1983); Administrator v. Diaz-Saldana, 1 N.T.S.B. 852 (1970).

¹⁰⁷ FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 163. "As a matter of law, an election to impose one sanction is not a bar to a concurrent proceeding to impose another; however, such action has the appearance of 'double jeopardy'" *Id.*

¹⁰⁸ *See generally* Ribler, 3 N.T.S.B. at 1394 (illustrates the possible pitfalls of a poorly executed settlement agreement with the FAA).

¹⁰⁹ Whetsel, NTSB Order No. EA-2110.

¹¹⁰ *See, e.g.,* Administrator v. Smoligan, 2 N.T.S.B. 9 (1973); Administrator v. Santos, 1 N.T.S.B. 1172 (1971); Diaz-Saldana, 1 N.T.S.B. at 852.

¹¹¹ FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 14.

¹¹² *Id.* § 1002(c)(2).

¹¹³ *Id.* § 1002(c)(3).

The criteria utilized by the FAA for selecting either a civil penalty action or a certificate action is contained in the Compliance and Enforcement Handbook.¹¹⁴ The FAA will choose, however, to pursue a certificate action except for (1) actions against airline certificates, (2) cases where certificate action will disrupt air travel and put political pressure on the FAA, and (3) cases where the FAA fumbles a case under the Stale Complaint Rule.¹¹⁵ Civil penalty actions are not cost effective, especially when the violations are of a minor nature or when the penalty is limited to \$1000.¹¹⁶

Civil penalty cases are difficult for the FAA to pursue because civil penalty actions are brought by the United States Attorneys' Office on behalf of the FAA. There are coordination problems with the United States Attorneys who are busy pursuing international drug dealers, environmental polluters, stock market manipulators, and spies. The U.S. Attorneys are reluctant to pursue the somewhat technical and obscure violations of the FARs

¹¹⁴ *Id.* § 205.

¹¹⁵ 49 C.F.R. § 821.33 (1987); *see infra* notes 284-286 and accompanying text.

¹¹⁶ *See* United States v. Airways Serv., Inc., 429 F. Supp. 843, 847 n.11 (N.D. Iowa 1977). Chief Judge McManus, in a decision from a civil case in which an air repair station was fined \$500 and two aviation mechanics were each fined \$250 for minor bookkeeping violations, complained:

The court is compelled to make some observations in passing judgment on these defendants. Notwithstanding the jurisdiction reposing in this court, it is particularly an inappropriate forum for disposition of these offenses, hypertechnical as they are. The devotion of time and resources by the parties to this cause and the court have been all out of proportion to the importance of the violations. Not only are the offenses primarily of the type often termed procedural irregularities or technicalities, but they have also been voluntarily remedied by the defendant.

The regulatory scheme involved here tends to be of an esoteric framework more properly in the realm of administrative than judicial expertise. Certainly procedural irregularities such as these are best resolved at an earlier stage of the controversy by the Administrator of the FAA or his representative. It appears that these offenses should be subject to the compromises that the Administrator is empowered to extend by 49 U.S.C. § 1471(a)(2). They should not be subject to personality conflicts, apparently present here, which can turn a technical violation into a "federal case."

which offer little possibility of favorable publicity or large recoveries.¹¹⁷ In addition, the results of a civil action are unpredictable, and the FAA may find itself stuck with precedent it does not want.¹¹⁸ As a result, the FAA will usually bring a certificate action against a mechanic or maintenance facility even for minor violations of the FARs.

4. *Sanctions*

It is the FAA inspector's responsibility to recommend an appropriate sanction,¹¹⁹ including the amount of the fine or the period of suspension in a civil case. The "[r]egional counsel will make an independent determination as to the appropriate type of . . . sanction and [will] coordinate a joint determination whenever a difference exists."¹²⁰ The FAA considers the following factors in determining the appropriate sanction:

- (1) Significance in degree of hazard to the safety of other aircraft, or persons or property on the ground, created by the alleged violation; (2) Nature of violation — inadvertent or deliberate; (3) Past violation history; (4) Alleged violator's level of experience; (5) Attitude of alleged violator; (6) Nature of activity involved — private, public, or commercial; (7) Ability of alleged violator to absorb the sanction . . . ; (8) Indirect impact on other segments of the industry or public; (9) Need for special deterrent action in a particular regulatory area or segment of industry; and (10) Disciplinary or punitive action taken by the employer or other authority.¹²¹

¹¹⁷ See generally FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 165-67.

¹¹⁸ *Id.* at 166.

In view of the fact that relatively few civil penalty cases are litigated in the Federal courts, it is essential that they are handled properly, in order that unfortunate precedent — making decisions resulting from a misunderstanding of a case on the part of the court or the U.S. Attorney handling the case be avoided.

Id.

¹¹⁹ *Id.* at 17.

¹²⁰ *Id.* at 127.

¹²¹ *Id.* at 17-18; see also *Administrator v. Woods*, 3 N.T.S.B. 3343, 3344 (1981). "In determining the appropriate sanction . . . the Board generally considers the

Both an administrative law judge and the Board have the power to reduce the duration of an existing suspension and change a revocation to a suspension. If an administrative law judge reduces the sanction, the Board may, and has in the past, restored the full sanction.¹²² Recently, the Board held that the administrative law judge must have "clear and compelling reasons" for reducing a sanction imposed by the FAA once the violations are proven.¹²³

The NTSB will look to its prior decisions to determine whether a sanction is appropriate.¹²⁴ However, the District of Columbia Circuit of the Federal Court of Appeals has held that the NTSB may impose sanctions inconsistent with prior NTSB decisions; the sanction need only have a reasonable relationship to goals that Congress in-

following factors — the nature of the violations and the hazard to the safety of others, as well as the certificate holder's experience and attitude, and his use of the certificate." *Id.*; cf. *Administrator v. Whitaker*, 1 N.T.S.B. 1983, 1988 (1972) (ten similar, but not identical, factors which the FAA considers when choosing a sanction); FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR No. 00-46C, AVIATION SAFETY REPORTING PROGRAM (1985) [hereinafter SAFETY PROGRAM] (contains another list of ten factors, different from the list in COMPLIANCE AND ENFORCEMENT, *supra* note 52, and *Whitaker*, which the FAA considers when choosing a sanction).

¹²² *E.g.*, *Administrator v. Roberts*, NTSB Order No. EA-2595 (Sept. 8, 1987); *Administrator v. Goei*, NTSB Order No. EA-2380 (Aug. 5, 1986); *Administrator v. Selliken*, NTSB Order No. EA-2329 (Aug. 24, 1986); *Administrator v. Auburn Flying Serv.*, NTSB Order No. EA-2214 (Sept. 18, 1985); *Whitaker*, 1 N.T.S.B. at 1988; see also FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 172. "Special consideration should be given to appealing every case in which the law judge, after having found all of the violations alleged in the FAA complaint, reduces the sanction without adequate justification". *Id.*

¹²³ *Administrator v. Winslow*, NTSB Order No. EA-2628 (Nov. 5, 1987); see also *Administrator v. Muzquiz*, 2 N.T.S.B. 1471 (1975); cf. *Administrator v. Harbin*, NTSB Order No. EA-2571 (June 23, 1987) (administrative law judge allowed to reduce sanction in absence of clear and compelling reasons where precedence demonstrates that a lower sanction was normally imposed).

¹²⁴ *Harbin*, NTSB Order No. EA-2571; *Administrator v. Nightingale*, 3 N.T.S.B. 3860, 3862 (1981); *Administrator v. Altman*, 3 N.T.S.B. 3311, 3313 (1981). "Board precedent concerning the sanctions affirmed for similar violations in prior cases is an appropriate criterion for use in establishing whether respondent's conduct herein is sufficiently egregious to warrant revocation under the above mentioned guidelines." *Id.*; *Administrator v. Harrison*, 2 N.T.S.B. 504, 506 (1973); *Administrator v. Sayler*, 2 N.T.S.B. 366 (1973).

tended under the Federal Aviation Act.¹²⁵

The NTSB will uphold a harsher penalty for an IA mechanic than for an A & P mechanic.

[T]he standards for revocation are of necessity more stringent with respect to the inspection authorization rating than for the mechanic certificate. When maintenance is improperly performed, the inspection should discover discrepancies prior to any release of the aircraft. Once a release is signed, however, there is no further check on the condition of the aircraft. It is for that reason that disqualification to hold an inspection authorization is often determined, warranting revocation, even though the action against the mechanic certificate may be more lenient. A mechanic's indifference to and noncompliance with the regulations, or his negligence, will therefore be the basis of revocation of an inspection authorization and still warrant only suspension of the mechanic certificate, on the theory that the combined sanction will deter the mechanic and others similarly situated from similar performance violations in the future. It would be too dangerous in the interest of safety to apply that theory to seriously improper inspections.¹²⁶

The NTSB has held that the fact that a mechanic would be deprived of a living is not a mitigating circumstance, at least in the case of an IA whose violation is serious enough to revoke his IA certificate.¹²⁷ "[W]hen air safety requires that a sanction be imposed, particularly revocation, the economic consequences of such an imposition cannot be considered in mitigation."¹²⁸ The NTSB has also held that criminal and civil penalties imposed by state and federal courts "are not to be considered in mitigation

¹²⁵ *Barnum v. NTSB*, 595 F.2d 869, 872 (D.C. Cir. 1979); *see also* *Rice v. NTSB*, 745 F.2d 1037, 1039 (6th Cir. 1984). "On liability the Board gives no deference to the FAA, but on the punishment issue the Board has established a kind of rebuttable presumption of correctness. Neither the statute governing review by the Board, 49 U.S.C. § 1429, nor the [Administrative Procedures Act] requires the Board to decide the question of punishment anew without any deference to the FAA decision" *Id.*

¹²⁶ *Saylor*, 2 N.T.S.B. at 367.

¹²⁷ *Administrator v. Holmes*, NTSB Order No. EA-2328 (Apr. 24, 1986).

¹²⁸ *Id.*

of [a] sanction in an enforcement proceeding."¹²⁹

The NTSB has held that revocation is the proper penalty where a mechanic made false entries into maintenance records.¹³⁰ The NTSB also upheld the revocation of the mechanic certificate, possessed by a pilot who forged the signature of his flight instructor in order to take a flight test, noting that "honesty and integrity are an essential part of the qualifications of a mechanic, upon whom pilots and aircraft owners must rely so heavily for the safe maintenance of their planes."¹³¹ The NTSB has held that revocation is the proper penalty for a mechanic who performed an IA inspection while his IA was suspended.¹³² The Board upheld the FAA's revocation of a mechanic's certificate because repeated poor work demonstrated that the mechanic lacked "the qualifications required of a holder of a mechanic certificate."¹³³

Additionally, prior violations of the FARs may be considered in evaluating the proper penalty.¹³⁴ "Nor is there any necessity that the violations be of the same type as the ones for which revocation is sought."¹³⁵ Where a civil penalty was paid by a certificate holder, and the certificate holder did not admit violation of the FARs, evidence of these violations should not be admitted at the certificate

¹²⁹ Administrator v. Hatcher, 2 N.T.S.B. 2058, 2059 (1976).

¹³⁰ Administrator v. Muscatine Flying Serv., Inc., NTSB Order No. EA-2487 (Mar. 6, 1987); *Altman*, 3 N.T.S.B. at 3314; Administrator v. Whittington 3 N.T.S.B. 654, 656 (1976); see also *Mitchem*, NTSB Order No. EA-1867; Administrator v. Cassis, NTSB Order No. EA-1831 (Sept. 22, 1982). See generally Administrator v. Chu, NTSB Order No. EA-2561 (July 7, 1987) (incomplete entry held not fraudulent); Administrator v. Niolet, 3 N.T.S.B. 2846, 2848 (1980) (elements needed to establish fraud in preparing logbook entries); Administrator v. Hart, 3 N.T.S.B. 24 (1977) (must show that airman knew entries were false).

¹³¹ *Whittington*, 3 N.T.S.B. at 656 n.10.

¹³² Administrator v. Spears, 2 N.T.S.B. 1658 (1975).

¹³³ Administrator v. Karp, 1 N.T.S.B. 112, 116 (1967). "[T]he respondent, over a course of a year, improperly repaired and overhauled two engines and a carburetor in a third engine." *Id.*

¹³⁴ *Woods*, NTSB Order No. EA-2493 (prior violations considered); *Smoligan*, 2 N.T.S.B. at 9 (previous violations indicated lack of "compliance attitude"); *Santos*, 1 N.T.S.B. at 1172 (prior record showed violations); see also *Sayler*, 2 N.T.S.B. at 367 (citing *Smoligan*).

¹³⁵ *Santos* 1 N.T.S.B. at 1173.

hearing.¹³⁶ Because of this, many experienced attorneys recommend compromising or paying the fees where litigation expenses will exceed the civil penalty.¹³⁷ However, some FAA Enforcement Investigation Reports contain a listing of all administrative actions and all civil penalties imposed and paid, whether such penalties were compromised or not. The administrative law judge who rules on the sanction also decides the admissibility of evidence, and therefore the judge will have knowledge of penalties introduced into evidence. Note also that the Board held it was merely harmless error for the judge to admit prior compromised civil penalties into evidence.¹³⁸ There is no guarantee that the FAA or the NTSB will continue their policy of excluding compromised civil penalties.

II. MAINTENANCE RESPONSIBILITIES AND STANDARDS

FAA maintenance enforcement cases are complex and confusing, both because the area is technically complex and many critical regulations are poorly drafted. Since FAA maintenance enforcement cases are complex, an attorney defending the mechanic or repair facility must be prepared to educate the court or the administrative law judge on both the technical evidence and the FARs governing responsibilities and standards. An attorney representing the mechanic or repair facility should never assume that the airworthiness inspector or FAA attorney understands the relevant FARs. Often, an FAA attorney will take a position that is contrary to the FARs, FAA di-

¹³⁶ *Administrator v. Perez*, 2 N.T.S.B. 2050 (1976); see also Kovarik, *Procedures Before the Federal Aviation Administration*, 42 J. AIR L. & COM. 11, 22 (1976). But see *Diaz-Saldana*, 1 N.T.S.B. at 852 (evidence of compromised civil penalty allowed).

¹³⁷ E.g., YODICE, *AVIATION LAWYERS MANUAL: REPRESENTING THE PILOT IN FAA ENFORCEMENT ACTIONS* (1986)

This can best be accomplished by sending a check in offer of compromise . . . with a cover letter saying very clearly that the offer is not an admission of the charges made in the civil penalty letter and is merely being made as a convenience to the parties in order to avoid the expense and trouble of litigation.

Id. at 26-27.

¹³⁸ *Perez*, 2 N.T.S.B. at 2052.

rectives, and NTSB decisions. Therefore, the attorney representing the mechanic or air facility must become intimately familiar with the rules governing maintenance standards and responsibilities.

A. *Maintenance Responsibilities*

Certain words and phrases used in the FARs, and bantered about by mechanics and FAA inspectors, are not defined in the FARs or in the Federal Aviation Act. Such words and phrases are thus a source of confusion both to the practicing mechanic and to the FAA inspectors. Two such phrases are "approval for return to service" and "return to service." The phrase "approval for return to service" is entered into the maintenance logbook by an authorized mechanic or repairman to verify that a certain repair was properly made. The phrase "return to service" refers to an act by the pilot or owner of an aircraft, when either person places the aircraft back into operational status.¹³⁹

In 1982, the FARs were updated partly to clarify the difference between "approval for return to service" and "return to service."¹⁴⁰ However, the attempt at clarification is incomplete. For example, Part 65 of the FARs still states: "A certified mechanic with an airframe rating may approve *and return to service* an airframe"¹⁴¹ and "[a] certi-

¹³⁹ See KING, AVIATION MAINTENANCE MANAGEMENT, 41 (1986) "Approval for return to service is a maintenance record entry by an authorized individual. Return to service is any action by any person to put an aircraft or article into operational status after it has been maintained or altered." *Id.*; INSPECTOR'S HANDBOOK, *supra* note 22, at app. 4 case F.

The actual return to service may consist of any action indicating an intent by an owner or operator, or other person, to put the aircraft in an operational status. A properly executed maintenance record entry in accordance with FAR Section 43.9 is an "approval" for return to service but does not constitute that act.

Id.

¹⁴⁰ See 47 Fed. Reg. 41,076, 41,077 (1982). "This change clarifies the difference between the terms 'approve for return to service' and 'return to service.' The term 'approve for return to service' is inserted in section 43.5 and 'return to service' is inserted in Part 91." *Id.* at 41,077.

¹⁴¹ 14 C.F.R. § 65.85 (1988) (emphasis added).

fied mechanic with a powerplant rating may approve *and return to service* a powerplant or propeller."¹⁴²

Normally, there is no problem. After finishing a repair, an authorized mechanic or repairman places the proper approval for return to service in the maintenance log-book. The pilot or operator then returns the aircraft or aircraft part to service, usually by flying the aircraft to its home airport or returning the aircraft to its regular route. Difficulty arises when the pilot, the owner or the operator, eagerly reclaims an aircraft by taking it from the repair facility before the maintenance or maintenance records are complete. This situation occurs because many pilots have the mistaken belief that it is the sole responsibility of the mechanic to ensure that such maintenance or maintenance records are complete. Taking the aircraft before the maintenance or maintenance records are complete, however, clearly violates the FARs.¹⁴³ Under the applicable FARs, "[t]he owner or operator of an aircraft is primarily responsible for maintaining that aircraft in an airworthy condition, including compliance with [any airworthiness directives.]"¹⁴⁴

The mechanic's and repair station's obligation to perform maintenance on any aircraft is purely contractual. An owner or operator of an aircraft may hire individual mechanics or contract with a repair station to do maintenance work. But at no time does the obligation to keep

¹⁴² *Id.* § 65.87 (emphasis added).

¹⁴³ *Id.* § 91.167(a). "No person may operate any aircraft that has undergone maintenance, preventative maintenance, rebuilding, or alteration unless — (1) it has been approved for return to service by a person authorized under § 43.7 of this chapter; and (2) the maintenance record entry required . . . has been made." *Id.*; see also FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR No. 43-9B, MAINTENANCE RECORDS 2 (1984) [hereinafter MAINTENANCE RECORDS]. "Section 91.165 requires each owner or operator to ensure that maintenance persons make appropriate entries in the maintenance records to indicate the aircraft has been approved for return to service. Thus, the prime responsibility for maintenance records lies with the owner or operator." *Id.*

¹⁴⁴ 14 C.F.R. § 91.163(a) (1988); see also *id.* §§ 121.363 (certificate holder primarily responsible for airworthiness), 125.243 (certificate holder responsible for maintenance), 127.131 (air carrier responsible for airworthiness of its helicopters), 135.413 (certificate holder responsible for airworthiness).

the aircraft in an airworthy condition shift from the owner or operator of the aircraft to the mechanic. Should the mechanic fail to finish the maintenance and not approve the aircraft for return to service, either because the mechanic deems the aircraft unrepairable, the mechanic claims a disputed payment with the owner, or the mechanic procrastinates,¹⁴⁵ the remedy is contractual and a matter for the civil courts rather than for the FAA.

If confronted by the FAA, the pilot or operator who retrieves an aircraft prematurely may attempt to shift the blame to the mechanic or maintenance facility for releasing the aircraft prematurely. Too often the FAA inspector, misunderstanding the maintenance responsibilities of the parties, agrees to recommend a penalty against the mechanic or maintenance facility. For example, in *Administrator v. Noonan*, the FAA suspended a mechanic's certificate for releasing an aircraft before making an entry into the maintenance logbook.¹⁴⁶ The Board upheld the suspension, arguing:

Respondent testified that he was aware that logbooks must be signed prior to release of the aircraft, but that he did not feel that he was releasing the plane and that it was his practice not to make the entry until he completed the work order. The above position is not convincing in view of the fact that the ground runup or break-in had been completed and the owner was allowed to fly the plane on November 20th carrying a passenger.¹⁴⁷

In a similar case, *Administrator v. Aircraft Engine Maintenance Corp.*, the NTSB reversed the FAA suspension of a repair station.¹⁴⁸ Aerotaxis, an air carrier, contracted with Aircraft Engine Maintenance Corporation (AEM), to overhaul or exchange the engines on one of Aerotaxis's DC-3 airplanes. Aerotaxis failed to deliver the maintenance

¹⁴⁵ See, e.g., *Muscatine Flying Serv. Inc.*, NTSB Order No. EA-2487, at 12 n.11 (Mar. 6, 1987). "Mr. Taylor told Mr. Letts . . . 'I did not do the annual . . . because I didn't have the time.'". *Id.* (citation omitted).

¹⁴⁶ 3 N.T.S.B. 1006 (1978).

¹⁴⁷ *Id.* at 1008.

¹⁴⁸ 3 N.T.S.B. 3051 (1980).

records to AEM. After AEM overhauled the engines, but before AEM prepared the maintenance records for the overhaul, Aerotaxis and AEM disagreed on the amount of charges for AEM's services. Aerotaxis complained to the FAA after the DC-3 was returned to them. The FAA suspended AEM's repair station certificate for 180 days alleging that AEM violated several sections of the FARs, including section 145.59 which requires a qualified mechanic to inspect an aircraft before returning it to service. Upon review, the Board held that the record failed to show whether the repair facility completed all required maintenance before the owner took the airplane. The Board concluded: "In these circumstances we cannot find that respondent violated any duty it may have to certify the airworthiness of the aircraft's engines."¹⁴⁹ However, seven years after *Aircraft Engine Maintenance*, the FAA argued in a civil penalty case: "Under FAA regulations . . . a certified repair station is required to approve an aircraft for return to service prior to releasing the aircraft to the owner/operator."¹⁵⁰

B. *Maintenance Standards*

1. *The Mechanic's Signature*

After repair or alteration of any general aviation aircraft or part, the mechanic approving the repair will place in the maintenance record of the aircraft or part, a description of the work performed, the date the work was completed, the name of the person performing the work (if that person is different from the mechanic approving the work), and the signature, certificate number, and type of certificate of the mechanic approving the maintenance.¹⁵¹ Similar provisions apply to a mechanic conducting a re-

¹⁴⁹ *Id.* at 3054-55.

¹⁵⁰ Motion for Summary Judgment for the United States, *United States v. Alphin Aircraft, Inc.*, No. K-84-2287, at 3 (D. Md. Mar. 29, 1985) (case dismissed by agreement June 6, 1985) [hereinafter Motion for Summary Judgment].

¹⁵¹ 14 C.F.R. § 43.9 (1988)

quired inspection.¹⁵² After an inspection, the signature, certificate number, and the kind of certificate held by the mechanic are entered into the maintenance record.¹⁵³ Parts 121, 127, and 135 have different requirements for air carriers and commercial operators,¹⁵⁴ but no air carrier or commercial operator may operate an aircraft after maintenance is performed until the proper maintenance records are completed and signed by a certified mechanic or repairman.¹⁵⁵

The act of signing the maintenance record has great significance in the FARs. The signature is the final act of a repair, alteration, or inspection. Although certain sections of the FARs appear to distinguish between the approval for return to service and completed maintenance records,¹⁵⁶ the approval for return to service and the act of signing the maintenance record by the mechanic approving the return to service should be simultaneous.¹⁵⁷ If the proper signature is in the maintenance record, the return to service is approved. If the signature is missing, there is no approval for return to service.

It appears that the performance standard contained in section 43.13 of the FARs will be used against a certificate holder only after an approved return to service is verified by a signature in the maintenance records. In *Administrator v. Aircraft Engine Maintenance Corp.*,¹⁵⁸ a repair station's mechanic overhauled the engines of the aircraft. Because of some confusion in the overhaul manual, the mechanic left out an oil seal in one engine. Upon testing the engine after the overhaul, the repair station discovered the miss-

¹⁵² *Id.* § 43.11(a).

¹⁵³ *Id.* § 43.11(a)(3).

¹⁵⁴ *Id.* § 43.9(b).

¹⁵⁵ *Id.* §§ 121.709, 127.319, 135.443.

¹⁵⁶ *Id.* § 91.167.

¹⁵⁷ *Administrator v. Hawkins*, 3 N.T.S.B. 1653, 1654 (1979). "In fact, the plane was not approved for return to service until December when the appropriate entry was made in the maintenance record [logbook] by an authorized person." *Id.* See generally INSPECTOR'S HANDBOOK, *supra* note 22, at app. 4, case 7; 14 C.F.R. pt. 43 (1988).

¹⁵⁸ 3 N.T.S.B. 3051 (1980).

ing oil seal and corrected the problem. The FAA suspended the repair station's certificate alleging that the repair station violated section 43.13(a), which reads: "Each person performing maintenance . . . shall use the methods, techniques, and practices . . . acceptable to the Administrator" ¹⁵⁹ The Board reversed the FAA action, holding that "in view of the fact that the respondent's own mechanic discovered and corrected the mistake in the course of testing the engine, we cannot find that the mistake, standing alone, constituted a violation of Section 43.13(a)." ¹⁶⁰

The FARs impose responsibility for the work performed on the person who places his or her signature in the maintenance record. A mechanic signing for the work of another assumes responsibility for that work. The signing mechanic may have his or her certificate suspended or revoked if the work is so poorly performed as to violate the FARs. In *Administrator v. Sanders*, a glider club purchased a used 1956 Cessna and hired two mechanics, Sanders (an A & P mechanic) and Montoyne (a certified mechanic with an airframe rating) to rebuild the plane. ¹⁶¹ Montoyne performed seventy-five percent of the work and was paid directly by the club. Sanders performed twenty-five percent of the work, but signed for *all* of the work. Because Montoyne used incorrect procedures to repair the wings, the FAA suspended Sanders' certificate. The Board upheld the FAA sanction stating that although Sanders did not do the incorrect repairs himself, "he signed as mechanic and is, therefore, held accountable for the work and the manner of its performance." ¹⁶² In another case, *Administrator v. Peralta*, a mechanic (Peralta) signed for the work of another at the direction of his su-

¹⁵⁹ 14 C.F.R. § 43.13(a) (1988). This section was revised since this case was decided. The quotation is from the updated version. The changes should not affect the holding of this case.

¹⁶⁰ *Aircraft Engine Maintenance*, 3 N.T.S.B. at 3052.

¹⁶¹ 2 N.T.S.B. 1386 (1975).

¹⁶² *Id.*

pervisor.¹⁶³ Because the work was poorly performed, the NTSB upheld the FAA's suspension of Peralta's A & P certificate. The fact that a supervisor directed Peralta to sign was irrelevant.¹⁶⁴

The signing mechanic, however, is not strictly liable for mistakes made by the mechanic who actually performs the work. In *Administrator v. Alphin*, an IA mechanic inspected and approved the return of an engine to service. The engine was overhauled by another mechanic who was presumed to be an A & P mechanic.¹⁶⁵ An FAA inspector claimed to find discrepancies in the inspection of the engine after the overhaul. The FAA brought an action against the IA mechanic. The Board discussed the IA's liability under the FARs for such work, noting:

Although the record does not reflect the procedures employed in inspecting an engine that is being or has been overhauled, we assume that, . . . there may be many internal components that simply cannot be visually inspected. As to such components, an I.A. holder's reliance on a licensed mechanic's assurances that the work was properly performed would presumably be reasonable, in the ab-

¹⁶³ 1 N.T.S.B. 1724 (1972).

¹⁶⁴ *Id.*; *Cf. Nightingale*, 3 N.T.S.B. at 3860 (rejected defense that certification was conditional) (citing *Garrett*); *Administrator v. Garrett*, 1 N.T.S.B. 669 (1969) (rejected conditional certification defense).

¹⁶⁵ 3 N.T.S.B. 3591 (1981); 3 N.T.S.B. 3600 (1981). The history of the *Alphin* litigation is complex. *See Alphin*, 3 N.T.S.B. at 3591 (board requests supplemental briefs on IA's responsibility for inspecting maintenance performed by certified mechanic); *Alphin*, 3 N.T.S.B. at 3600 (board upholds suspension); *Administrator v. Alphin*, NTSB Order No. EA-1743 (Jan. 25, 1982) (board denies motion to dismiss for procedural defects in FAA complaint); *Administrator v. Alphin*, NTSB Order No. EA-1777 (May 27, 1982) (board grants petition for rehearing on grounds that FAA inspector's testimony during related civil trial was inconsistent with testimony at NTSB hearing); *Alphin*, NTSB Order No. EA-2008 (board reverses FAA suspension due to defects in teardown inspection done by FAA inspector); *Administrator v. Alphin*, NTSB Order No. EA 2090 (Dec. 20, 1984) (FAA Motion for Reconsideration denied); *Administrator v. Alphin*, NTSB Order No. EA-2142 (Feb. 28, 1985) (board denies FAA Motion to Vacate Order No. EA-2112 on grounds that Board lacked proper quorum); *Administrator v. Alphin*, NTSB Order No. EA-2342 (June 24, 1986) (application for attorney fees and other expenses denied); *Administrator v. Alphin*, NTSB Order No. EA-2423 (Oct. 22, 1986) (motion for reconsideration of denial of Application for attorneys fees denied); *Alphin v. NTSB*, 839 F.2d 817 (D.C. Cir. 1988) (denial of attorney fees reversed and case remanded to NTSB for further proceedings).

sence of some indication that some disassembly for verification was necessary.¹⁶⁶

It is unclear whether or not a certified mechanic is strictly liable for the work of an uncertified mechanic under the supervision of the certified mechanic. Presumably, the responsibility of the certifying mechanic is to provide supervision consistent with a reasonable assessment of the uncertified mechanic's abilities and character.¹⁶⁷

The Board has held, however, that upon signing an annual inspection, an IA mechanic is not justified in relying on the assurances of a pilot or owner that an aircraft is airworthy. In *Administrator v. Holmes*, a pilot took his airplane to an IA inspector for an annual inspection.¹⁶⁸ The IA inspected the aircraft and found several problems with the plane. The IA noted in the aircraft's maintenance logbook that the plane was not airworthy and supplied a list of the discrepancies to the owner. The owner shopped around until he found Holmes, another IA mechanic who was willing to sign off on the aircraft as airworthy. The FAA revoked Holmes' IA certificate and suspended his A & P license for a year. On appeal, Holmes argued that the owner failed to show him the logbook and the list of discrepancies. The owner also assured him that the plane was airworthy. The NTSB upheld the suspension.¹⁶⁹ This holding is unremarkable except that *Holmes* is not unique. Too many aircraft owners will attempt to search for a mechanic who fails to take his responsibility seriously.

2. "Airworthy" or "Airworthiness"

As noted in this article, certain words and phrases used in the FARs, but undefined either in the FARs or in the Federal Aviation Act, are a source of confusion both to practicing mechanics and to FAA airworthiness inspectors. Two of the worst are the adverb "airworthy" and

¹⁶⁶ *Alphin*, 3 N.T.S.B. at 3591.

¹⁶⁷ See *Alphin*, NTSB Order No. EA-2008.

¹⁶⁸ NTSB Order No. EA-2328.

¹⁶⁹ *Id.*

the adjective "airworthiness." The terms "airworthy" and "airworthiness" are used throughout the FARs.¹⁷⁰ Yet neither the FARs nor the Federal Aviation Act define the terms.

a. *Traditional Definition*

In 1958 Civil Aeronautic Board Examiner, Joseph C. Caldwell, Jr., discussed the failure of the aviation regulations to define these terms.¹⁷¹ The Civil Aeronautic Administrator brought a suspension proceeding against a pilot for operating an aircraft in an unairworthy condition. The examiner noted that "[t]he term 'airworthy' is not defined in either the Civil Aeronautics act of 1938, as amended, or the Civil Air Regulations."¹⁷² After reviewing the act, the examiner extrapolated a two pronged definition of airworthiness.¹⁷³ To be airworthy an aircraft must conform to its type certificate or type design, as such certificate or design has been modified by any supplemental type certificates and airworthiness directives, and must be in condition for safe operation.¹⁷⁴ The term "airworthy" is not synonymous with flyable.¹⁷⁵ This definition of the term "airworthy" was adopted by the FAA¹⁷⁶ and the NTSB.¹⁷⁷

¹⁷⁰ *E.g.*, 14 C.F.R. §§ 91.29 (civil aircraft airworthiness), 43.11(a) (maintenance entries), 43.15(a) (additional rules for inspection), 1.1 (definition section, airworthy used but not defined) (1987).

¹⁷¹ *Administrator v. Norman*, 27 C.A.B. 1194 (1958). Until April 1967, the Civil Aeronautics Board performed administrative review functions now performed by the NTSB. The examiners are now called administrative law judges.

¹⁷² *Id.* at 1205.

¹⁷³ 49 U.S.C. app. § 1423(a)(2) (1982). "If the Secretary of Transportation finds that such aircraft . . . is of proper design, material, specification, construction, and performance for safe operation, and meets the minimum standards, rules and regulations . . . the Secretary of Transportation . . . shall issue a type of certificate therefore." *Id.*; *Cf.* 49 U.S.C. app. § 1423(c) (1982) ("If the Secretary of Transportation finds that the aircraft conforms to the type certificate therefor, and after inspection, that the aircraft is in condition for safe operation, he shall issue an airworthiness certificate." *Id.*

¹⁷⁴ *Norman*, 27 C.A.B. at 1205.

¹⁷⁵ *Administrator v. Doppes*, NTSB Order No. EA-2123 (Jan. 1, 1985).

¹⁷⁶ INSPECTOR'S HANDBOOK, *supra* note 22, at 191.

¹⁷⁷ *Doppes*, NTSB Order No. EA-2123, at 6 n.6:

b. *Shortcomings of the Traditional Definition*

Although the FAA and the NTSB clearly adopt this definition, the use of the two pronged test suffers from the following disabilities.

(1). *Type certificates are unavailable to pilots and mechanics*

The type certificate is composed of those documents that an aircraft or aircraft parts manufacturer must prepare to be permitted to manufacture or to distribute civil aircraft or aircraft parts. A type certificate includes the type design, the operating limitations, and the certificate data sheet.¹⁷⁸ Only the operating limitations and the certificate data sheet are available to the aviation community.

(a). *Type Design*

The type design consists of — (a) The drawings and specifications, and a listing of those drawings and specifications, necessary to define the configuration and the design features of the product shown to comply with the requirements of that part of this subchapter applicable to the product; (b) Information on dimensions, materials, and

The term "airworthiness" is best defined by reference to Section 603(c) of the Federal Aviation Act of 1958 (49 U.S.C. § 1423(c)) which imposes a two-prong definition. In order to be airworthy, an aircraft (1) must conform to its type certificate, if and as that certificate has been modified by supplemental type certificates and by Airworthiness Directives; and (2) must be in condition for safe operation. The term "airworthiness" is not synonymous with flyability.

For the consequences of flying an airplane that is not airworthy, see *Administrator v. Reid*, NTSB Order No. EA-1914 (July 1, 1983) (right landing gear damaged); *Administrator v. Bakeeff*, 3 N.T.S.B. 2765 (1980) (plane operated despite substantial damage); *Administrator v. Patnode*, 3 N.T.S.B. 969, 970 (1978) (plane damaged when it struck a power line); *Administrator v. Blackwell*, 2 N.T.S.B. 360, 361 (1973) (plane's wing taped together). All these cases involve pilots who attempted to fly an airplane damaged in a hard landing or other accident after only a quick inspection and some juryrigged repairs. Some of the planes were flyable. The proper course for the pilot in those cases would have been to obtain a permit to fly the airplane to a repair facility. See 14 C.F.R. §§ 21.197 (special flight permits), 199 (issuance of special flight permits) (1988); *INSPECTOR'S HANDBOOK*, *supra* note 22, at 469.

¹⁷⁸ 14 C.F.R. § 21.41 (1988). For certification procedures for products and parts, see 14 C.F.R. pt. 21.

processes necessary to define the structural strength of the product; (c) The Airworthiness Limitations section of the Instructions for Continued Airworthiness as required by Parts 23, 25, 27, 29, 31, 33, and 35 of this chapter . . . ; and (d) Any other data necessary to allow, by comparison, the determination of the airworthiness and noise characteristics (where applicable) of later products of the same type.¹⁷⁹

However, the type design is not available to the aviation community or the general public because it is the aircraft manufacturer's proprietary information.¹⁸⁰ The aircraft manufacturers have resisted any effort to allow the FAA to release information contained in their type design documents.¹⁸¹

¹⁷⁹ 14 C.F.R. § 21.31 (1988).

¹⁸⁰ See FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ORDER No. 8110.4, TYPE CERTIFICATION (1967) [hereinafter TYPE CERTIFICATION].

The design data as defined by Federal Aviation Regulations, Section 21.31, submitted to the FAA to substantiate airworthiness for the certification of a product is part of the type certificate. This data should be retained in files of the FAA but may be retained by the type certificate holder providing he agrees to maintain it in the currently approved status and make it available to FAA at all times without restriction.

Type design data submitted to FAA for approval shall not be disclosed without the written consent of the owner or as permitted by . . . the Administrative Procedures Act . . . and . . . the Federal Aviation Act of 1958.

Id. at 10; see also FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ORDER No. 1200.23 PUBLIC AVAILABILITY OF INFORMATION (1978).

Privately developed and owned aircraft design data on manufacturer's production documents, such as engineering reports, drawings, specifications, quality control manuals, etc., submitted to the FAA in support of the type certification, production certification, and original airworthiness certification programs may be exempt from disclosure to the public to the extent that it is determined to be a trade secret or commercial or financial information that is privileged or confidential.

Id. at 31.

¹⁸¹ Letter from J. Dexter Peach, Director of Resources, Community and Economic Development at the General Accounting Office to the Honorable Andy Ireland, Chairman, Subcommittee on Export Opportunities and Special Small Business Problem, Committee on Small Business, House of Representatives (Apr. 16, 1984) (CAO Document 124.021) (report prepared by the Government Accounting Office in response to proposed rules that would release certain data contained in the type certificate).

In spite of the fact that type design information is restricted, certain NTSB decisions have specified that satisfying "airworthiness" requires conformity to the type design.¹⁸² "An aircraft is airworthy when (1) it conforms to a type design approved under a type certificate or a supplemental type certificate and to applicable Airworthiness Directives; and (2) it is in a condition for safe operation."¹⁸³ Because the type design is restricted, the FAA in many cases will not produce a copy of the type design at a hearing. The NTSB has responded to this problem in two ways. In *Administrator v. Apollo Airways, Inc.*, the FAA alleged that Apollo operated an aircraft with its summing unit held together with a tie wrap, rather than bolted down, and with a temporary installation of jump wire across the on/off switch in the NAV system.¹⁸⁴ The FAA alleged that such actions made the aircraft unairworthy because they did not conform with the type design. However, since the FAA failed to introduce the type design into the evidence, the NTSB found that the charges were unproven. In other cases, however, the NTSB allowed the FAA in the absence of the type design to present experts to speculate that damage to, or modification of, an aircraft would alter the type design.¹⁸⁵

Parts manufacturers we contacted said that it was virtually impossible for them to obtain the original equipment manufacturer's design data because it is closely guarded proprietary information. FAA officials in two of the regions compared the parts manufacturer's design data with the original manufacturer's design data which was on file at the FAA field office. If the original equipment manufacturers data was not on file because of anticipated proprietary data problems, they told the parts manufacturers seeking PMAs [part manufacturer's approval] that the FAA was not able to grant PMA approval. FAA regional offices frequently do not maintain original equipment manufacturers' design data in their files.

Id. at 4; see also TYPE CERTIFICATION, *supra* note 180, at 9-11.

¹⁸² See, e.g., *Administrator v. Apollo Airways*, NTSB Order No. EA-2373 (July 28, 1986).

¹⁸³ *Id.* at 19 n.7 (citing *Doppes*, NTSB Order No. EA-2123 at 6).

¹⁸⁴ *Apollo Airways*, NTSB Order No. EA-2373 at 17-19.

¹⁸⁵ See, e.g., *Doppes* NTSB Order No. EA-2123 at 6. "[T]he propeller could not be returned to an airworthy condition because the gouge destroyed the propeller's original shape as an airfoil." *Id.*; *Reid*, NTSB Order No. EA-1914 at 6.

(b). *Operating Limitations*

The operating limitations for an airplane or rotorcraft are contained in the Airplane or Rotorcraft Flight Manual which must be furnished with every civilian aircraft.¹⁸⁶ Engine operating limitations are found in the engine type certificate data sheet¹⁸⁷ and propeller operating limitations are found in the propeller type certificate data sheet.¹⁸⁸ Operating limitations are useful to the flight crew by showing at what limits (speed, cargo weight, torque radius) a properly maintained aircraft or aircraft part may be safely operated. The data sheets do not, however, show if an aircraft is airworthy or if an aircraft conforms to a type certificate.

(c). *Type Certificate Data Sheets*

The type certificate data sheet is an abridged listing of the information contained in the type certificate.¹⁸⁹ The type certificate data sheets for aircraft, aircraft engines, and propellers are distributed to the aviation community on a subscription basis.¹⁹⁰ In a recent case, at the request of the owner, a mechanic placed a Bendix brand magneto on an airplane engine.¹⁹¹ The type certificate data sheet only listed a Slick brand magneto on that type engine.

"[T]he fact that the airplane was flyable, with its aerodynamic surfaces changed, was a fortuitous circumstance." *Id.*

¹⁸⁶ 14 C.F.R. §§ 23.1581, 1583; 25.1581, 1583; 27.1581, 1583; 29.1581, 1583 (1988).

¹⁸⁷ *Id.* § 33.7(a).

¹⁸⁸ *Id.* § 35.5.

¹⁸⁹ See *id.* § 21.41 (1988); FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 33-2A, AIRCRAFT ENGINE TYPE CERTIFICATION HANDBOOK 4-5 (1972).

¹⁹⁰ FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, GUIDE TO FEDERAL AVIATION ADMINISTRATION PUBLICATIONS 22-23 (1988)[hereinafter GUIDE TO FEDERAL AVIATION PUBLICATIONS].

¹⁹¹ A magneto is a device that uses the engine's own kinetic energy to generate electrical impulses to the spark plug. This eliminates the need for a battery and a distributor to deliver the electrical impulse to the spark plugs. Once started, the engine will remain running even if the battery is dead or disconnected. Magnetos are used on all modern reciprocating aircraft engines and on some motorcycle engines.

The FAA brought a civil penalty case against the mechanic. The FAA took the position that failure to conform with the type certificate data sheet is a violation of section 43.13(b) of the FARs.¹⁹² The mechanic argued there is no obligation under the FARs to conform to the type certificate data sheet because the FARs do not state that mechanical work must conform with the type certificate data sheet. Both sides made a motion for summary judgment in federal district court. Before the court issued a decision, the FAA agreed to settle the case by dropping the charges against the mechanic in exchange for him not seeking legal fees from the FAA.¹⁹³

(2). *"Airworthy" and "Airworthiness" Are Not Defined In the FARs*

Although Examiner Caldwell developed the two pronged definition of "airworthy" in 1958, the FAA has yet to place that definition in the FARs. However, the NTSB holds that airmen should know the two pronged definition of "airworthy."¹⁹⁴ In spite of such rulings by the NTSB, many sections of the FARs which hinge on the definition of "airworthy" or "airworthiness" may be unenforceable as written. The Freedom of Information Act states that "[e]xcept to the extent that a person has actual and timely notice of the terms thereof, a person may not in any manner be required to resort to, or be adversely affected by, a matter required to be published in the Federal Register and not so published."¹⁹⁵ Neither the publication of this definition in an FAA handbook nor in an NTSB Order satisfies this requirement. It is unacceptable to hold airmen

¹⁹² See *infra* notes 225-230 and related text for a discussion of 14 C.F.R. § 43.13(b) (1988).

¹⁹³ See Motion for Summary Judgment, *supra* note 150. The author's research uncovered no cases which require a mechanic to use only those parts listed on the type certificate data sheet or cases which allow a mechanic to use parts not specified on the type certificate data sheet.

¹⁹⁴ See *Doppes* NTSB Order No. EA-2123 at 6; *Reid*, NTSB Order No. EA-1914 at 6.

¹⁹⁵ 5 U.S.C. § 552(a)(1) (1982).

and air facilities to an unpublished definition.¹⁹⁶

(3). *The Definition Is Inconsistent With the Use of the Term in Certain Sections of the FARs*

It is possible that the FAA refused to incorporate the two pronged definition into the FARs because the definition is inconsistent with the use of the term in many sections of the FARs. For example, section 23.1 of the FARs states: "This part prescribes airworthiness standards for the issue of type certificates" ¹⁹⁷ In this section the term "airworthiness" cannot mean conformity to the type certificate since the term "airworthiness" is used to describe the standards to which the type certificates themselves must conform.

A more accurate way to describe the terms "airworthiness" or "airworthy" would be: "an aircraft or aircraft part is airworthy if that aircraft or aircraft part may be properly and safely used within the prescribed operation limitations contained in the appropriate Aircraft Flight Manual or Flight Certificate data sheet." This description is closer to the way "airworthiness" or "airworthy" is used throughout the FARs. It also solves, or at least avoids, the problem of creating a definition that relies on unavailable type designs. This new definition, however, may require pilots, mechanics, and FAA inspectors to make determinations more properly made by aeronautical engineers.

¹⁹⁶ Cf. *Administrator v. Allen*, 29 C.A.B. 1418, 1422 (1959).

In answer to the alleged operation of aircraft in an unairworthy condition, respondent stated that he believed the airplane to be safely flyable. He said: I, on my part, confused the term "airworthy" and "safely flyable." I was in error but did not know it at the time. Respondent had reason to be confused. There is no definition for the term airworthy in the Civil Air Regulations, and its meaning has been a matter of speculation.

Id.

¹⁹⁷ See also 14 C.F.R. §§ 25.1, 27.1, 31.1, 33.1, 35.1 (1988) (each section prescribes airworthiness standards for a type of aircraft or part of an aircraft).

c. *Recent Trends Away From Reliance On the Traditional Definition*

Recent NTSB holdings have minimized the importance of airworthiness in determining whether a certificate action should be taken. In *Administrator v. Hanley*,¹⁹⁸ a pilot, unaware that needed repairs remained undone, was charged with a violation of section 91.29(a) of the FARs after he flew the airplane.¹⁹⁹ His employer assured him prior to the flight that the airplane was properly repaired and returned to service. The mechanic assured him that the needed repairs had been done. The pilot, himself, had done the proper preflight safety checks. In reversing the FAA action, the Board upheld the administrative law judges conclusion that "the respondent was not liable for a violation of section 91.29(a) because he was not reasonably chargeable with knowledge of the aircraft's unairworthy condition."²⁰⁰ In *Administrator v. Sanders*,²⁰¹ and in *Administrator v. Alphin*,²⁰² the NTSB held that a mechanic was not in violation of section 43.13(b) of the FARs (which requires that an aircraft be restored to its original airworthy condition), when the mechanic followed the proper maintenance or overhaul procedures as outlined in the manual, even if the result did not conform to the type design.

These cases introduce an element of reasonableness into the harsh result of requiring pilots and mechanics to assure that aircraft conform to unavailable type certificates. Unfortunately, the FAA failed to incorporate these decisions into the FARs, and has failed to disseminate these holdings to its FAA inspectors. It is likely that many

¹⁹⁸ NTSB Order No. EA-2090 (Nov. 10, 1984).

¹⁹⁹ *Id.* at 2. 14 C.F.R. § 91.29(a) (1987) states "[n]o person may operate a civil aircraft unless it is in an airworthy condition."

²⁰⁰ NTSB Order No. EA-2090 at 2.

²⁰¹ 2 N.T.S.B. at 1386-88 (1975); see *infra* notes 226-227 and accompanying text for a discussion of this case.

²⁰² NTSB Order No. EA-2008; see *supra* note 165 for a discussion of the history of the *Alphin* litigation; see *infra* notes 228-229 and accompanying text for a detailed discussion of the holding.

responsible and dedicated pilots and mechanics, through no fault of their own, will find themselves entangled in future enforcement actions involving airworthiness.

In two other cases, the NTSB wrestled with the two pronged definition. In *Administrator v. DiGiovanni*,²⁰³ the FAA revoked DiGiovanni's commercial pilot's certificate after he flew his balloon without proper padding and with an attached banner promoting the "United Way". DiGiovanni donated both his time and the balloon to the United Way campaign. The Board reduced the sanction to ninety days. In their decision, the Board appeared to limit the safety prong of the two pronged definition. While the Board perceived the possibility of a safety issue, they concluded that:

[W]e are not convinced that every potential hazard created by something carried on an aircraft automatically warrants the conclusion that the aircraft was thereby rendered unairworthy [W]e are unwilling to stretch the concept of airworthiness to apply to a condition which has not been shown to directly affect the design or performance of this balloon as originally certificated.²⁰⁴

A more critical case is *Administrator v. Calavaero, Inc.*²⁰⁵ The FAA alleged that Calavaero, Inc. flew several aircraft in unairworthy condition. The NTSB, in reversing the order argued

[W]e do not agree that every scratch, dent, "pinhole" of corrosion, missing screw, or other defect, no matter how minor or where located on the aircraft, dictates the conclusion that the aircraft's design, construction, or performance has been impaired by the defect to a degree that the aircraft no longer conforms to its type certificate. In this case the Administrator essentially made no effort to show that the alleged defects or discrepancies had had, an adverse impact on the level or safety that an aircraft's conformity with its type certificate is intended to insure, or to

²⁰³ NTSB Order No. EA-1768 (Mar. 24, 1982).

²⁰⁴ *Id.* at 6.

²⁰⁵ NTSB Order No. EA-2321 (Apr. 17, 1986).

counter the substantial evidence adduced by respondent that they had not had such an impact.²⁰⁶

The Board added in a footnote:

To the extent that the relevance of a specific mechanical condition or defect is neither self-evident nor addressed in an appropriate maintenance manual or other reference, we perceive no reason why a properly trained mechanic should not be free to determine whether the airworthiness of an aircraft exhibiting such a condition or defect has been compromised. Indeed, we assume aircraft mechanics are called upon routinely to make such determinations.²⁰⁷

After the Board issued this decision, the FAA made an unopposed motion for reconsideration. The FAA did not seek a reversal of the decision but rather a clarification of the decision. The Board agreed and stated:

We did not intend . . . to alter or broaden the Administrator's evidentiary obligation in a case of this type. Rather, the quoted language was meant to underscore or illuminate our judgment in this case that the Administrator had failed to demonstrate either that respondent had operated its aircraft when it was in an unsafe condition or that the alleged defects supported a conclusion that the aircraft had been operated when it lacked conformity with its type certificate. To the extent that Order EA-2321 can be read to imply that the Administrator to prove unairworthiness must show the safety impact of a defect or discrepancy that does establish a nonconformity with the aircraft's type certificate, we hereby disavow any such implication.²⁰⁸

Simply stated, the Board recognized that minor wear and tear, as well as minor alterations, will not make an aircraft unairworthy. This case, however, illustrates the difficulty of applying the two pronged test to real world situations. One solution is to excise from the FARs the terms "airworthy" and "airworthiness" as standards of conduct.

²⁰⁶ *Id.* at 6-7.

²⁰⁷ *Id.* at 7 n.11.

²⁰⁸ *Administrator v. Calvaero, Inc.*, NTSB Order No. EA-2362 (July 2, 1986).

d. *Sections of the FARs That Use the Terms "Airworthy" or "Airworthiness" as Standards of Conduct Are Unclear and in Need of Rewriting*

"Airworthiness is not a precise concept, and determining the airworthiness of a given component may involve judgment over which the experts might disagree."²⁰⁹ The words "airworthy" and "airworthiness" give the illusion of being scientific or technical, yet the words remain vague and confusing to most readers. One could substitute the term "etcetera" for the term "airworthiness" in many sections of the FARs with little loss of clarity. For example, the definition of "major repairs" could be rewritten as repairs which "appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, [etcetera]."²¹⁰ Except where the term airworthiness is used as a part of a term of art or phrase described in the FARs, for example "airworthiness directive"²¹¹ or "airworthiness standards,"²¹² almost every section which uses the terms "airworthy" or "airworthiness" is unclear, subject to different interpretations and therefore in need of rewriting for clarity.

For example, section 91.29 of the FARs now reads: "No person may operate a civil aircraft unless it is in an airworthy condition."²¹³ Typically violations of this section occur happen when a pilot, after a hard landing or other accident, attempts to fly the aircraft after performing minimal inspection and doing some jury-rigged repairs.²¹⁴ When the FAA suspends or revokes the pilot's license for operating an unairworthy airplane, the NTSB must again explain to the pilot that flyability and airworthiness are different. The pilot would at least be forewarned if sec-

²⁰⁹ Administrator v. Parker, 3 N.T.S.B. 2997, 2998 (1980).

²¹⁰ See 14 C.F.R. § 1.1 (1988).

²¹¹ *Id.* at pt. 39 (1988).

²¹² *Id.* § 23.1(a).

²¹³ *Id.* § 91.29(a).

²¹⁴ *Doppes*, NTSB Order No. EA-2123; *Reid*, NTSB Order No. EA-1914; *Bakeeff*, 3 N.T.S.B. at 2765; *Patnode*, 3 N.T.S.B. at 969; *Blackwell*, 2 N.T.S.B. at 360; see *supra* note 177.

tion 91.29 included the sentence: "No person without a valid ferry permit shall operate a civil aircraft after a hard landing, crash, propellor stop or any other accident where that aircraft is damaged, until such damage is repaired and the aircraft is approved for return to service by a properly certified person."

3. *Maintenance Performance Rules*

The "rules governing the maintenance, preventive maintenance, rebuilding, and alteration of" the United States civil air fleet are contained in Part 43, of the FARs.²¹⁵ Section 43.13 contains the performance rules for all maintenance, preventative maintenance or alterations. Section 43.15 contains additional performance rules for inspections of aircraft.

a. *Section 43.13: Maintenance, Preventative Maintenance, and Alterations Performance Rules*

Section 43.13 contains three paragraphs. Paragraph (a) reads:

Each person performing maintenance, alteration, or preventative maintenance on an aircraft, engine, propellor, or appliance shall use the methods, techniques, and practices prescribed in the current manufacturer's maintenance manual or Instructions for Continued Airworthiness prepared by the manufacturer, or other methods, techniques, and practices acceptable to the Administrator²¹⁶

Instructions for "continued airworthiness" are described in detail in the FARs.²¹⁷ These instructions are prepared by the manufacturer of the aircraft, aircraft engine, or propeller. The instructions for continued airworthiness for airplanes and rotorcraft include a maintenance manual

²¹⁵ 14 C.F.R. § 43.1(a) (1988); *see also id.* § 145.57 (directing certificated domestic repair stations to perform maintenance and alteration operations in accordance with the standards in Part 43).

²¹⁶ 14 C.F.R. § 43.13(a) (1988).

²¹⁷ *See id.* §§ 21.50(b), 23.1529, 27.1529, 29.1529, 31.82, 35.4; 14 C.F.R. pt. 23, app. G; pt. 25, app. H; pt. 27, app. A; pt. 29, app. A; pt. 31, app. A; pt. 33, app. A; and pt. 35, app. A (1988).

or section, maintenance instructions, and an airworthiness limitations section.²¹⁸ The instructions for continued airworthiness for aircraft engines and propellers contain a maintenance manual or section, an overhaul manual or section, and an airworthiness limitations section.²¹⁹

The NTSB allows the FAA to revoke or suspend a maintenance certificate if a mechanic fails to follow the approved maintenance manual²²⁰ or the approved overhaul manual.²²¹ The NTSB refused, however, to uphold the suspension of a mechanic for failure to comply with an FAA service bulletin.²²² A mechanic may be responsible for not following any appropriate procedures in the Mechanic's Handbook published by the FAA.²²³ Although I have found no cases on point, it is likely that a mechanic is responsible for ensuring that the maintenance he or she performs conforms to any applicable airworthiness directives.²²⁴

Paragraph (b) of section 43.13 reads in its entirety:

Each person maintaining or altering, or performing preventive maintenance, shall do that work in such a manner and use materials of such a quality, that the condition of the aircraft, airframe, aircraft engine, propeller, or appliance worked on will be at least equal to its original or

²¹⁸ 14 C.F.R. pt. 23, app. G; pt. 25, app. H; pt. 27, app. A; and pt. 29, app. A (1988).

²¹⁹ *Id.* pt. 33, app. A; pt. 35, app. A.

²²⁰ Administrator v. Pascarella, NTSB Order No. EA-1943 (Oct. 5, 1983); *Sanders*, 2 N.T.S.B. at 1386.

²²¹ Administrator v. Robinson, NTSB Order No. EA-1928 (Aug. 29, 1983); Administrator v. Stroupe, 1 N.T.S.B. 1708 (1972). "[R]espondent's first error as a mechanic was his failure to resort to a current manual." *Id.*

²²² *Alphin*, NTSB Order No. EA-2008 at 2; Administrator v. Torbert, 3 N.T.S.B. 2718, 2725 (1980).

²²³ *E.g.*, FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 65-9A, AIRFRAME AND POWERPLANT MECHANICS — GENERAL HANDBOOK (1976); FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION ADVISORY CIRCULAR 65-12A, AIRFRAME AND POWERPLANT MECHANICS HANDBOOK (1976); FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 65-15A, AIRFRAME AND POWERPLANT MECHANICS AIRFRAME HANDBOOK (1976); *Cf.* Pascarella, NTSB Order No. EA-1943 (Flight Training Handbook [FAA ADVISORY CIRCULAR 61-21A], although not in the C.F.R., should be considered in determining standard of conduct for mechanics).

²²⁴ See *infra* notes 249-253 and accompanying text.

properly altered condition (with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness).²²⁵

This paragraph contains the term "airworthiness." As noted, most sections of the FARs which contain the term "airworthiness" need to be rewritten for clarity. Paragraph (b) is a source of confusion and perplexity both to the practicing mechanic and to the FAA inspectors who attempt to enforce the FARs. It is a source of delight to attorneys who thrive on complex litigation created by such confusion. At first glance, this rule appears to require that the repairs done on an aircraft or aircraft part must strictly comply with the specifications contained in the type certificate or type design. The NTSB has rejected such a view.

In *Administrator v. Sanders*, the FAA claimed that a repair failed to conform to the standards specified in the type design for the aircraft.²²⁶ During the hearing, the FAA introduced drawings of the type design. The repairs made by the mechanic did not conform to the drawings. The NTSB, however, rejected the drawings as the correct repair standard because the information needed to follow such a standard was not in the appropriate maintenance manual. The NTSB stated: "We are aware that wear and tear, particularly over 20 years, would have made absolute conformance to the drawing improbable. It is for that reason that the manufacturer publishes a service manual which indicates how to compensate for the changes time, wear and tear have wrought."²²⁷

In *Administrator v. Alphin*, the FAA again attempted to suspend an IA mechanic who allowed an improperly manufactured camshaft to be used in the overhaul of an engine.²²⁸ The flaws in the camshaft could not be

²²⁵ 14 C.F.R. § 43.13(b) (1987).

²²⁶ 2 N.T.S.B. 1386 (1975).

²²⁷ *Id.* at 1387-88.

²²⁸ NTSB Order No. EA-2008 (May 31, 1984); see *supra* note 165.

discovered by following the instructions in the overhaul manual, but could be found by an *ad hoc* test proposed by the inspector. The Board reversed the suspension stating that the overhaul manual establishes the correct maintenance standard. The NTSB stated:

While we do not take issue with the FAA inspector's opinion that a better overhaul might be accomplished if testing not dictated by the overhaul manual were undertaken, the regulatory standard is not what an inspector believes should be done in connection with an overhaul, but, rather what the Administrator has specified, through approved overhaul manuals and other documents, must be done.²²⁹

Both cases hold that if the repairs are made in conformity with the standards in the maintenance or overhaul manuals, the mechanic has fulfilled the requirement of section 43.13(b) of the FARs. Conformity with the overhaul or maintenance manual, however, is already required by section 43.13(a). Since FAA inspectors and practicing mechanics find both paragraphs of section 43.13 confusing, this section should either be repealed or drastically rewritten.

How should Paragraph (b) be rewritten? Paragraph (b) has two requirements. The first requirement is that the work must be done properly. The second requirement is that the materials or parts used must be of appropriate quality. The first requirement is covered by paragraph (a). The second requirement may be covered by paragraph (a), but there may be times when such information is not contained in the instructions for continued airworthiness. Therefore, a revised paragraph (b) could read as follows:

(b) Each person performing maintenance or preventative maintenance on an aircraft, engine, propeller or appliance shall use the following parts or materials:

(1) Any part specified by make and part number on the

²²⁹ *Id.* at 7-8.

current type certificate data sheet for the specific model aircraft, engine, propeller or appliance being worked on, unless the type certificate data sheet has been superseded by an airworthiness directive;

(2) Any part specified by make or by part number in the manufacturer's Instructions for Continued Airworthiness for the specific model aircraft, engine, propeller, or appliance being worked on;

(3) Any part produced under an FAA Technical Standing Order for use in the specific model aircraft, engine, propeller or appliance being worked on;

(4) Any part produced under an FAA Parts Manufacturer's Approval for use in the specific model aircraft, engine, propeller or appliance being worked on;

(5) Standard parts (such as bolts and nuts) conforming to established industry or U.S. specifications, provided that the manufacturer's Instructions for Continued Airworthiness for the specific model aircraft, engine, propeller or appliance being worked on does not specify that a specific part should be used instead of standard part;

(6) Generic material (such as fabric, paint, metal tubing, or sheet metal) conforming to established industry or U.S. specifications, used by certified mechanics, repair stations, and air carriers in accordance with approved data contained in the manufacturer's Instructions for Continued Airworthiness for the specific model aircraft, engine, propeller or appliances being worked on;

(8) Any part or material specified by a certificate holder's own technical data developed pursuant to Special Federal Aviation Regulation 36 (SFAR-36);

(9) Any part manufactured under an approved type certificate, FAA Technical Standard Order, or FAA Parts Manufacturer Approval, but not approved for use in the specific model aircraft, engine, propeller or appliance being worked on. However, the use of such part shall be considered an alteration which is subject to the provisions of FAR Part 43, Appendix A and Appendix B.²³⁰

²³⁰ This proposed rewriting of section 43.13(b) of the FARs had its genesis in a conversation the author had with a dedicated and experienced mechanic known for his strict adherence to the FARs. This is generally his view of what parts should be used in aircraft repairs.

Paragraph (c) of section 43.13 reads in part:

*Special provisions for holders of air carrier operating certificates and operating certificates issued under the provisions of Part 121, 127, or 135. . . . Unless otherwise notified by the administrator, the methods, techniques, and practices contained in the maintenance manual or the maintenance part of the manual of the holder of an air carrier operating certificate or an operating certificate under Part 121, 127, or 135 . . . constitute acceptable means of compliance with this section.*²³¹

Paragraph (c) allows air carriers and other operators to avoid the problems inherent in applying the vague provisions of paragraph (b).

b. *Paragraph Performance Rules*

Section 43.15 and Part 43, Appendix D contain additional performance rules for inspection of aircraft.²³² Unlike the general performance rules described in Section 43.13, the additional inspection rules are detailed and clear. Section 43.15 describes three general categories or types of inspections: the annual and 100-hour inspection;²³³ the progressive inspection;²³⁴ and the inspections contained in a Part 123, 125, 135, or 91.169(e) maintenance program.²³⁵ Annual and 100-hour inspections are required on most general aviation aircraft.²³⁶ A mechanic performing such inspections is required to use a checklist containing the items detailed in Part 43, Appendix D.²³⁷ This checklist may be prepared by the mechanic, the aircraft manufacturer or can be obtained from another source.

An aircraft owner or operator may submit a written re-

²³¹ 14 C.F.R. § 43.13(c) (1988).

²³² Section 43.13 also applies to inspections. See *Woods*, NTSB Order No. EA-2493.

²³³ 14 C.F.R. § 43.15(c) (1988).

²³⁴ *Id.* § 43.15(d).

²³⁵ *Id.* § 43.15(a),(b).

²³⁶ *Id.* § 91.169.

²³⁷ *Id.* § 43.15(c)(1); see, e.g., *Holmes*, NTSB Order No. EA-2328.

quest to the FAA to use a progressive inspection program.²³⁸ Part 121 air carriers, some Part 135 air carriers and commercial operators, as well as owners and operators of large aircraft with a seating capacity of 20 or more passengers or maximum payload of 6,000 pounds or more, must develop a written inspection program which is part of their FAA approved maintenance manual.²³⁹ Owners and operators of other large aircraft, turbojet multiengine airplanes, or turbopropeller powered multiengine airplanes are also required to develop a written inspection program approved by the FAA.²⁴⁰ Progressive inspection programs and the other inspection programs contained in this paragraph are used in lieu of the 100-hour and annual inspection.²⁴¹ Operators and owners of scheduled air carriers with helicopters must develop a written inspection program which is part of their FAA approved maintenance manual.²⁴² These owners and operators, as well as small part 135 operators, may still be subject to the 100-hour annual inspection.²⁴³

Because of the detail contained in the inspection performance standards, cases involving mechanics who perform an inspection improperly are decided on a straight forward determination of facts and rarely involve the legal uncertainties associated with section 43.13(b) of the FARs.²⁴⁴ Both the FAA and the NTSB take the inspection functions of a mechanic seriously. The NTSB allows a harsher penalty to be imposed on an IA who fails to discover poor repairs during an annual inspection and ap-

²³⁸ 14 C.F.R. § 91.169(d) (1988). "Each registered owner or operator of an aircraft desiring to use a progressive inspection program must submit a written request to the FAA Flight Standards district office having jurisdiction over the area in which the applicant is located" *Id.*

²³⁹ *Id.* §§ 121.135(b), 121.367, 121.373, 135.23(o), 135.419, 135.431.

²⁴⁰ *Id.* § 91.169(e)-(h).

²⁴¹ *Id.* § 91.169(c).

²⁴² *Id.* § 125.73(n), 125.247, 127.63(b)(18), 127.133.

²⁴³ *Id.* §§ 91.169(c), 135.419.

²⁴⁴ See, e.g., *Woods*, NTSB Order No. EA-2493; *Holmes*, NTSB Order No. EA-2328, *Sayler*, 2 N.T.S.B. at 366; *Smoligan*, 2 N.T.S.B. at 9; *Administrator v. McNeely*, 3 C.A.B. 415 (1946).

proval for return to service, than the penalty imposed on the A & P mechanic who actually performs the poor work.²⁴⁵ A mechanic may be unfit to retain an IA certificate, yet still retain his or her A & P certificate.²⁴⁶

Both the FAA and the NTSB expect inspections to be detailed and painstakingly performed. In a recent case, the Honorable Thomas W. Reilly observed:

"These two hours to conduct a 100-hour inspection I think is outrageous and obviously absurd. I don't think a 100-hour inspection can be completed on a tiny single-engine Cessna 150 properly in just two hours. But these are sophisticated multi-engine aircraft carrying passengers and conducting revenue operations for hire."²⁴⁷

Administrator v. Woods illustrates the care that must be taken during a required inspection.²⁴⁸ The NTSB allowed the FAA to suspend Woods' IA certificate for ten months because Woods failed to remove a floorboard to check the control cables during an annual inspection.

Nowhere do the FARs specifically state that a mechanic performing an inspection must insure that the aircraft conforms to all applicable airworthiness directives. Section 43.11(b) of the FARs, however, states that a mechanic who finds during an inspection that an aircraft is not airworthy, must give the owner of the aircraft a list of all the discrepancies including all airworthiness directives that are not met. One FAA Advisory Circular states:

Maintenance persons may also have direct responsibility for AD [airworthiness directives] compliance, aside from the times when AD compliance is the specific work contracted for by the owner/operator. When a 100 hour, annual, or progressive inspection, or an inspection required under Part 123 or 125, is accomplished, Section 43.14(a) requires the person performing the inspection to perform it so as to determine that *all* applicable airworthiness re-

²⁴⁵ *Sayler* 2 N.T.S.B. at 367.

²⁴⁶ *Holmes*, NTSB Order No. EA-2328.

²⁴⁷ *Administrator v. Eagle Airlines, Inc.*, NTSB Initial Decision 7521 at 372.

²⁴⁸ *Woods*, NTSB Order No. EA-2493.

quirements are met, which includes compliance with AD's.²⁴⁹

Such a requirement would not be oppressive. Unlike type designs, airworthiness directives are readily available. Both paper and microfiche copies of all airworthiness directives are for sale by subscription from the FAA.²⁵⁰ Certified repair stations are required to have available appropriate airworthiness directives.²⁵¹

It is advisable for mechanics to ensure that they comply with all applicable airworthiness directives before certifying that an aircraft is airworthy. Unfortunately, nowhere in section 43.15 is the phrase "airworthiness directive" used. Nowhere in the FARs does it directly say that a mechanic performing an inspection must ensure that the aircraft is in compliance with applicable airworthiness directives.²⁵² Contrast this oversight to the Airworthiness Inspectors Handbook. In a section on the annual 100-hour inspection, the Handbook states:

In all cases, the persons authorized by FAR Sections 43.3 and 43.7 are responsible to determine either from adequate records or physical inspection, that the aircraft complies with the contents of the pertinent Aircraft Specification, Type Certificate Data Sheet and/or Supplemental Type Certificate, if applicable, and Airworthiness Directives.²⁵³

If the FARs were written with this same clarity all mechanics would be put on notice of their responsibility. Unfortunately as the FARs are now written, some mechanics may be misled. It would be easy to draft such a requirement into the FARs. The phrase "including all

²⁴⁹ FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 39-7A, AIRWORTHINESS DIRECTIVES FOR GENERAL AVIATION AIRCRAFT (1982). Note this circular and 14 C.F.R. sections 43.9, 43.11 and 43.15 reference Part 123 of the FARs. There is no Part 123, the reference is probably to Part 121.

²⁵⁰ GUIDE TO FEDERAL AVIATION PUBLICATIONS, *supra* note 190, at 24-25.

²⁵¹ 14 C.F.R. § 145.45(b)(2) (1988). *But see* 14 C.F.R. § 145.57(a) (1988) (fails to include airworthiness directives in its list of required publications).

²⁵² *But see* 14 C.F.R. § 43.11(b) (1988).

²⁵³ INSPECTOR'S HANDBOOK, *supra* note 22, at 6017.

applicable airworthiness directives" could be added to section 43.15 so that it would read:

"Each person performing an inspection . . . shall — (i) Perform the inspection so as to determine whether the aircraft, or portion(s) thereof, meet all applicable airworthiness requirements [including all applicable airworthiness directives]. . . ."

Of course such a requirement would be subject to the provision that the inspection mechanic should be able to reasonably rely on the aircraft's maintenance records to ascertain whether the records comply with an airworthiness directive.

c. *Alterations and Repairs*

Although a certified mechanic with the appropriate rating may approve an aircraft or aircraft part for return to service after a minor repair or alteration,²⁵⁴ only an IA mechanic may approve an aircraft or aircraft part for return to service after a major repair or alteration.²⁵⁵ Maintenance records for major repairs or alterations must conform to the additional requirements contained in Part 43, Appendix B of the FARs.

A "major alteration" is an alteration "(1) [t]hat might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or (2) [t]hat is not done according to accepted practices or cannot be done by elementary operations."²⁵⁶ A major repair is a repair "(1) [t]hat, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or (2) [t]hat is not done according to accepted practices or cannot be done by elementary operations."²⁵⁷ Part 43, Appendix A of the

²⁵⁴ 14 C.F.R. §§ 65.85, 65.87 (1988).

²⁵⁵ *Id.* § 65.95.

²⁵⁶ *Id.* § 1.1.

²⁵⁷ *Id.*

FARs contains a detailed listing of major alterations and major repairs.

In *Administrator v. Apollo Airways, Inc.*,²⁵⁸ the FAA suspended Apollo's air carrier certificate for 30 days for various violations of the FARs including performing major alterations without submitting the required documents to the FAA. The NTSB reduced the sanction to 15 days after the FAA failed to prove several of the violations. Apollo installed an over voltage protection device into an airplane's electrical system. The FAA contended that the installation of the over voltage protection device was a major alteration. Apollo produced an engineer who contended that the installation of the device was not a major alteration. The Board held:

In light of the fact that the respondent's exercise of a judgment that installation of the device is not a major alteration or a change to the *basic design* of the aircraft has merit, and in light of the fact that respondent did apply for a supplemental type certificate after being informed by the FAA that it considered the installation of the device to be a major alteration, the Board finds that the violation was not established. Moreover, we do not find that respondent's application for a supplemental type certificate is an admission that the device is in fact an alteration to the *basic design*.²⁵⁹

It appears that if a mechanic makes a reasonable determination that an alteration is a minor alteration, but the FAA considers the same alteration to be a major alteration, no violation should be assessed against the mechanic if after being informed of the FAA's position the mechanic submits the necessary forms required for a major alteration.

d. "Overhaul" and "Rebuilt" Defined

"Details of all fits and clearances relevant to an overhaul" must be included in the engine overhaul section or manual of the appropriate Instructions for Continued Air-

²⁵⁸ NTSB Order No. EA-2373.

²⁵⁹ *Id.* at 17 (emphasis added).

worthiness.²⁶⁰ Service limits and the manufacturer's minimum and maximum limits are listed. Manufacturer's minimum and maximum limits are often referred to as new limits. These are the dimensions that all new parts must meet during manufacturing. Service limits are the limits for permissible wear. Parts worn beyond service limits must be replaced.²⁶¹

Section 43.2 (b) of the FARs states that no aircraft or aircraft part may be described as rebuilt unless the aircraft or aircraft part is disassembled, cleaned, inspected, repaired as necessary, reassembled, and all parts used in the rebuilt aircraft conform to new limits. A rebuilt aircraft or aircraft part may include used parts if such parts conform to the new limits.²⁶² If an aircraft engine is rebuilt by the manufacturer, or an agency approved by the manufacturer, the aircraft engine will be treated as a zero time engine and the owner or operator of the engine need only keep maintenance records for the engine as of the date the engine was rebuilt.²⁶³

Why do the FARs use the vague phrase, "with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Administrator", rather than simply specify that an overhauled aircraft or aircraft part must conform at least to service limits? It appears that the FAA wants to avoid committing itself to a specified standard. The FAA Advisory Circular on Reciprocating Engine Overhaul Terminology and Standards notes that many terms describing overhauls are used throughout the industry. This results in engines being overhauled to different standards and tolerances depending upon how the specific mechanic de-

²⁶⁰ 14 C.F.R. pt. 23, app. A (1988).

²⁶¹ FEDERAL AVIATION ADMINISTRATION, DEP'T OF TRANSPORTATION, ADVISORY CIRCULAR NO. 43-11; RECIPROCATING ENGINE OVERHAUL TERMINOLOGY AND STANDARDS (1976) [hereinafter *ENGINE OVERHAUL*].

²⁶² 14 C.F.R. §§ 43.2(b), 91.175(c) (1987); *see also* *ENGINE OVERHAUL*, *supra* note 261.

²⁶³ 14 C.F.R. § 91.175 (1988).

finest the nature of the overhaul.²⁶⁴ The practice in the aviation community is to replace some parts if they exceed the new limits, and other parts if they exceed service limits. Most are replaced with parts that conform to new limits. Some parts, however, particularly expensive and longlasting parts, may be repaired with used parts that are within service limits.²⁶⁵ Other parts, particularly inexpensive parts that would be impossible to repair or replace without a major disassembly of the overhauled aircraft or aircraft part, are routinely replaced whether they exceed the limits or not. A mechanic will often replace a part that the overhaul manual maintains is serviceable because that mechanic knows from experience that the part wears quickly, breaks often, or that it is cheaper to replace the part than to clean, repair, and test the part. Some repair shops will manufacture fixed measuring tools such as go/no go gauges and will replace parts exceeding the fixed limits, even though a measurement made with a more sensitive tool would demonstrate that the part was still within service limits, or even within the new limits.

These practices are based on the mechanic's experience and understanding of the FARs, as well as the overhaul manual. As a result of these practices the typical overhauled aircraft, aircraft engine, or other aircraft part is a hybrid of new and old parts, with certain tolerances to service limits and more critical tolerances to new limits. If the FAA required the tolerances on an overhauled engine to be to the new limits, the cost of overhauling an aircraft or aircraft part would increase dramatically and owners and operators of aircraft would be outraged. If the FAA specified service limits, the standard would be below the industry practice and might encourage a lowering of the industry standard. Instead the FAA avoided this problem with a vague regulation.

Adopted September 16, 1982, section 43.2 of the FARs

²⁶⁴ *Alphin*, Order No. EA-2008 (May 31, 1984).

²⁶⁵ ENGINE OVERHAUL, *supra* note 261.

is relatively new.²⁶⁶ It appears that this regulation was enacted to restrict the meaning of the term "rebuilt". The industry tended to use the terms "rebuilt" and "overhaul" interchangeably. This led to confusion because the term "rebuilt" in section 91.175 applies to the zero time engine rebuilt by the engine manufacturer.

e. *Miscellaneous Maintenance Rules*

The remaining sections in Part 43 specify the persons who may certify maintenance and the required maintenance entries. These sections are already discussed in this article, and need no further clarification.²⁶⁷

III. PROCEDURES BEFORE THE NTSB

An attorney defending a mechanic or repair facility must not only understand the FARs governing maintenance standards and rules, but must be able to educate the court or the administrative law judge in the application of the FARs to the case at hand. The presentation of a civil penalty case in a federal district court is beyond the scope of this article.²⁶⁸ This article will instead examine the presentation of a case before the NTSB. An attorney representing a mechanic or air facility must be familiar with the Rules of Practice in Air Safety Proceedings before the NTSB which are contained in Title 49, Part 821 of the Code of Federal Regulations. The Board tends to strictly enforce these rules, however some cases hold that a *pro se* airman may be given some leeway concerning the rules.²⁶⁹

²⁶⁶ 47 Fed. Reg. 41,084 (1982).

²⁶⁷ For a listing of individuals authorized to perform maintenance, see *supra* note 6 and accompanying text and generally Part 1 of this article. See *supra* notes 151-155 and accompanying text for a discussion of the required maintenance entries.

²⁶⁸ The attorney who prepares a civil penalty defense must conduct vigorous discovery, be intimate with the Federal Rules of Evidence, know the special procedures and idiosyncrasies of the district court in which he or she will appear, and be prepared to educate the court on the FARs and technical evidence.

²⁶⁹ *Administrator v. Bruce*, 1 N.T.S.B. 591, 592 (1969) (*pro se* respondent not required to file a formal answer); see also *Administrator v. Jones*, 3 N.T.S.B. 3649

Many private attorneys feel that the Board tolerates noncompliance of the NTSB Rules of Procedure by FAA attorneys when such noncompliance is not tolerated from private attorneys. For example, in one case the Board accepted the FAA excuse "that an aviation safety proceeding should not be decided on a one-day delay caused by a 'small snafu'" ²⁷⁰ The Board held that "although the . . . rules require that the Administrator file his complaint within five days, the Board does not find that the one-day delay is grounds for dismissal." ²⁷¹ Yet the very next day, the Board dismissed a respondent's notice of appeal from an initial decision because of the attorney's one day miscalculation. The Board lectured the attorney by stating: "[W]e are unpersuaded by respondent's suggestion that the notice should be accepted notwithstanding its tardiness because a valuable certificate is at stake. It seems to us that that factor underscores the importance of diligence in ensuring timely performance of all procedural requirements." ²⁷² Such a double standard, however irritating it is to the private attorney, is hardly unique to the NTSB. Many courts and administrative bodies tolerate procedural errors made by the government that are unacceptable when made by a private attorney.

A. *Administrative Law Judges*

The Board delegates to administrative law judges the authority to conduct "all formal proceedings arising

(1981); *Whitaker*, 1 N.T.S.B. at 1983; *Administrator v. Papert*, 1 N.T.S.B. 378 (1968) (holding that respondent's failure to file an answer did not constitute an admission because he was *pro se*).

²⁷⁰ *Administrator v. Danielson*, NTSB Order No. EA-2313 (Mar. 26, 1986) (upholding an order of suspension for operating an aircraft without complying with its operating limitations).

²⁷¹ *Id.* at 6.

²⁷² *Administrator v. Royal American Airways, Inc.*, NTSB Order No. EA-2316 (Apr. 3, 1986) (granting motion to dismiss on appeal because it was not filed within ten days after issuance of the oral decision). *But see Administrator v. Akin*, NTSB Order No. EA-2376 (Aug. 1, 1986) (denying motion to dismiss on appeal when counsel was able to show that the delay was caused by failure of counsel's secretary to mail the brief when instructed to do so).

under Title VI of the Federal Aviation Act of 1958, including proceedings involving suspension or revocation of certificates and appeals from actions of the Administrator."²⁷³ Five administrative law judges work for the NTSB. Each judge is assigned a geographic region of the United States. As of December 1987, Judge Jerrill R. Davis was assigned to California and Hawaii, Judge Patrick G. Geraghty was assigned to the western states including Alaska, Judge Thomas W. Reilly was assigned to the central states, and Chief Judge William E. Fowler, Jr., was assigned to the southeastern states. These administrative law judges must travel constantly. For example, Judge Capps may have a hearing in Kansas City, Missouri one day, and have a hearing in Temple, Texas a few days later. The chief law judge or the law judge to whom the case is assigned determines the hearing location.²⁷⁴

It is the duty of the administrative law judge to conduct the hearings, accept evidence, rule on the party's motion, and issue the initial decision.²⁷⁵ The Board charges the administrative law judge "with the responsibility for the development of a full and fair record upon which a reasoned determination can be made."²⁷⁶ My experience is that the administrative law judges assigned to the NTSB are generous in allowing the attorney for the airman or air facility to fully develop a defense. The judges do not use questionable rulings on relevance or administrative convenience to cut off lengthy or novel defenses. The administrative law judges, to the extent consistent with the laws and regulations governing their actions, ensure that a mechanic or repair facility receives a full and fair hearing.

Since the majority of the NTSB cases concern pilot error, the administrative law judges have little experience with maintenance cases. As a result, the administrative law judge will rely on the testimony of an airworthiness

²⁷³ 49 C.F.R. § 800.2(d) (1987); *see id.* § 800.23.

²⁷⁴ *Id.* § 821.37(a).

²⁷⁵ *Id.* §§ 800.23, 821.35.

²⁷⁶ *Roach*, NTSB Order No. EA-1886 at 7.

inspector in order to determine the standards of conduct required of mechanics. The defense attorney must educate the administrative law judge on the standards contained in the FARs, FAA orders, as well as NTSB decisions, and must also educate the administrative law judge on the nature and the meaning of the technical and mechanical testimony presented in the hearing. If the administrative law judge finds the evidence or the standards of conduct required of mechanics confusing, he will probably hold for the FAA.

B. *The Complaint*

An FAA order suspending or revoking a certificate serves as the complaint.²⁷⁷ The complaint contains a recital of the facts upon which the FAA relies²⁷⁸ and specifies the section of the FARs allegedly violated. Many orders or complaints drafted by the FAA specify an alleged violation of the wrong section of the FARs. For example, an FAA complaint against a domestic repair station alleged a violation of section 145.75(a), which applies only to foreign repair stations.²⁷⁹

If the FAA realizes its mistake during the hearing, the administrative law judge will usually allow the FAA to amend its complaint provided that the essential facts underlying the complaint remain unchanged.²⁸⁰ If the mistake remains undetected, however, upon appeal the Board may make "no attempt to ascertain what provisions of the FAR the Administrator intended to cite"²⁸¹ and therefore dismiss the part of the complaint pertaining to the mistaken section of the FARs.

One tactic the FAA uses is to allege a series of violations of the FARs which FAA inspectors claim to find dur-

²⁷⁷ 49 C.F.R. § 821.31(a) (1987).

²⁷⁸ *Id.* § 821.31(b).

²⁷⁹ *Aircraft Engine Maintenance*, 3 N.T.S.B. at 3051.

²⁸⁰ *E.g.*, *Administrator v. Torbert*, 3 N.T.S.B. 2718 (1980) (the Board granted the FAA's motion to amend its complaint by changing the FARs allegedly violated from section 135.173(a)(i) to section 91.173(a)(i)).

²⁸¹ *Aircraft Engine Maintenance*, 3 N.T.S.B. at 3052.

ing their investigation.²⁸² Each violation individually has little or no basis, but together this barrage of alleged violations presents a holographic picture of a mechanic or repair station doing shoddy work. At the hearing, one or two FAA inspectors will testify as to each individual violation. When the defense presents its arguments to challenge each violation, it may appear as if the mechanic or repair station is simply offering excuses. The administrative law judge is left with the impression that even if the FAA failed to support one or two alleged violations, the mechanic or repair station must actually do shoddy work to warrant so many violations.²⁸³ The result on appeal can be different if each allegation is examined one at a time, and the defense proves FAA's weak position as to each violation. The conclusion, in this instance, is that the FAA used one weak allegation after another to bolster a weak case.

C. *The Stale Complaint Rule*

An attorney representing a mechanic or repair facility should not overlook the "stale complaint rule."²⁸⁴ Upon motion by the respondent, the administrative law judge

²⁸² See, e.g., *id.* at 3051.

The Administrator's order charged that respondent had violated (A) section 43.13(a) by performing maintenance which employed unacceptable methods, techniques, and practices; (B) section 145.75(a) by failing to perform maintenance in accord with Part 43, FAR; (C) section 45.13, by removing engine data plates without the Administrator's approval; (D) section 145.3, by operating in violation of its repair station certificate; (E) 145.53, by performing maintenance for which it was not rated; (F) section 145.59, by failing to certify that the powerplants it performed maintenance on were thereafter air-worthy; and (G) section 145.61, by failing to maintain adequate records of the work it performed.

Id.

²⁸³ But see *Administrator v. Tomahawk Airways, Inc.*, NTSB Order No. EA-2467 (Jan. 21, 1987). This case is an example of how an administrative law judge effectively handles a laundry list of alleged violations by breaking down each alleged violation and examining the evidence supporting each violation. This case provides an excellent blueprint of how an attorney can effectively handle the "laundry list" complaint.

²⁸⁴ 49 C.F.R. § 821.33 (1987); see also *Armstrong, Pilot Certificate Actions and Civil Penalties*, 52 J. AIR L. & COM. 77, 84-85 (1986).

may dismiss the FAA action if the offense stated in the complaint occurred more than six months before the FAA imposed the sanction. The FAA avoids dismissal by presenting evidence of good cause for the delay or in cases where the complaint alleges facts which demonstrate that the certificate holder is unqualified to hold a certificate.²⁸⁵ The respondent waives the stale complaint rule by failing to make a timely motion.²⁸⁶

D. *Discovery*

In order to provide for increased discovery in administrative proceedings, the NTSB in 1984 revised its procedural rules to expand the scope of discovery.²⁸⁷ These rules provide for both written and oral depositions, as well as interrogatories. The rules encourage the exchange of information "such as witness lists, exhibit lists, curricula vitae and bibliographies of expert witnesses, and other data."²⁸⁸ An attorney for a mechanic or maintenance facility should conduct vigorous discovery of FAA information. At a minimum, during discovery the attorney should obtain the Enforcement Investigation Report [EIR], Airworthiness Directives, manuals or other docu-

²⁸⁵ 49 C.F.R. § 821.33 (1987); see, e.g., *Muscatine Flying Serv., Inc.*, NTSB Order No. EA-2487. The FAA became aware of alleged violations during its four day inspection, and gave formal notice of proposed certification six months later. However, since the FAA sent a letter less than one month after inspection and was able to give a reasonable explanation for the delay between the sending of the letter and giving formal notice, the Board did not dismiss the complaint. *Id.*; *Apollo Airways*, NTSB Order No. EA-2373 (revocation of an airline's certificate by the Board is sufficient to put the airline's employees on notice of future violations, and delays between discovery and notice did not come under the "stale complaint" rule); *Administrator v. Moore*, N.T.S.B. Order No. EA-2253 (Dec. 6, 1985) (FAA could not prove good cause for six month delay between date of violation and notice of certificate revocation); *Administrator v. Zanolunghi*, 3 N.T.S.B. 3696 (1981).

²⁸⁶ *Alphin*, NTSB Order No. EA-1743.

²⁸⁷ 49 Fed. Reg. 28,250 (1984) (to be codified at 49 C.F.R. § 821.19) (proposed July 11, 1984); 49 C.F.R. § 831.19 (1987). "Those portions of the Federal Rules of Civil Procedure that pertain to depositions and discovery may be used as a general guide for discovery practice in proceedings before the Board where appropriate." *Id.* § 821.19(c); cf. *Sims v. NTSB*, 662 F.2d 668, 672 (10th Cir. 1981) (pre-1984 NTSB rules make no provisions for discovery in certificate cases).

²⁸⁸ 49 C.F.R. § 821.19(b) (1987).

ments that the mechanic or maintenance facility allegedly violated, as well as deposing the FAA investigator. The attorney should also demand the right to examine all physical evidence the inspector relied upon in making any conclusions. If at all possible, the attorney should depose the airworthiness inspector who conducted the inspections or tests of the mechanic's or air facility's work in order to prepare the EIR. The inspector's testimony will be less persuasive if the attorney for the defense is able to show that the inspector's opinions and conclusions are wrong. To do this the defense attorney must be intimately familiar with the tests used by the airworthiness inspector, which only a deposition will reveal.

E. *Evidence*

1. *Hearsay*

The hearing is conducted pursuant to the Administrative Procedures Act which provides:

Any oral or documentary evidence may be received, but the agency as a matter of policy shall provide for the exclusion of irrelevant, immaterial, or unduly repetitious evidence.²⁸⁹

The NTSB is not bound by the Federal Rules of Evidence or by common law rules of evidence.²⁹⁰ "While reference to the [Federal Rules of Evidence] may be helpful to us in assessing the propriety of specific evidentiary rulings on admissibility, those rules are not binding on law judges."²⁹¹

Questions regarding the admissibility of evidence are considered in light of what is necessary to achieve a fair and

²⁸⁹ 5 U.S.C. § 556(d) (1982).

²⁹⁰ *Administrator v. Daiker*, NTSB Order No. EA-1779 (Apr. 27, 1982) (administrative law judges have broad discretion to require compliance with reasonable submission procedures but the Federal Rules of Evidence are not binding on them); *Morton*, 2 N.T.S.B. at 1321; *Administrator v. Donart*, 2 N.T.S.B. 1 (1973). See generally K. DAVIS, *ADMINISTRATIVE LAW TREATISE* (2d ed. 1978), cited in *Donart*.

²⁹¹ *Daiker*, NTSB Order No. EA-1779 at 3; see also *Administrator v. Cockes*, 2 N.T.S.B. 1756, 1759 (1975) (NTSB expressly refused to follow Civil Aeronautics Board's lead in applying the Federal Rules of Evidence to certificate hearings).

just result for the parties, without slavish adherence to the intricate and often cumbersome rules of trial evidence. This helps provide the speed and flexibility which set administrative hearings apart from regular judicial proceedings.²⁹²

Hearsay is admissible in an administrative proceeding. The quality of the evidence, however, bears on the weight accorded the evidence.²⁹³ Generally the NTSB tends to give more weight to the testimony of a witness available for cross-examination than to the testimony of an unavailable witness whose report or affidavit contradicts other evidence.²⁹⁴ In *Administrator v. Robinson*, however, the Board upheld a suspension of an A & P mechanic's certificate. The Board accorded more weight to an expert's prepared report, which claimed engine failure from an overtorqued propeller governor oil line, than to the mechanic's expert witness who testified at the hearing that the overtorqued propeller governor oil line would not cause such failure.²⁹⁵ Both the Board Rules and the Administrative Procedures Act provide:

Every party shall have the right . . . to conduct such cross examination as may be required for a full and true disclosure of the facts.²⁹⁶

In *Administrator v. Alphin*,²⁹⁷ the FAA attempted to suspend the IA rating of a mechanic who had authorized for return to service two aircraft engines after an overhaul. After the overhaul, the owners of the aircraft complained to the FAA that the engines ran rough. A mechanic from

²⁹² *Donart*, 2 N.T.S.B. at 2-3.

²⁹³ *Administrator v. King*, NTSB Order No. EA-1992 (Apr. 19, 1984)(hearsay evidence was admitted and together with circumstantial evidence was found sufficient to carry the Administrator's burden of proof); *Pascarella*, NTSB Order No. EA-1943; *Parker*, 3 N.T.S.B. at 2999 (hearsay evidence admitted and considered in establishing proof of an alleged violation); *Morton*, 2 N.T.S.B. at 1324.

²⁹⁴ *Woods*, 3 N.T.S.B. at 3344.

²⁹⁵ NTSB Order No. EA-1928 (Aug. 29, 1983).

²⁹⁶ 49 C.F.R. § 821.38 (1987); *accord* 5 U.S.C. § 556(d) (1982): "A party is entitled . . . to conduct such cross examination as may be required for a full and true disclosure of the facts."

²⁹⁷ NTSB Order No. EA-2008.

a rival repair station conducted a teardown inspection of the two engines while an FAA inspector observed and took notes. As a result, the FAA alleged that the engines were not overhauled correctly. The judge upheld the suspension, but the Board reversed.

The FAA failed to have the mechanic who performed the teardown for the FAA inspector testify at the hearing. The Board stated:

Most of respondent's objections relate to the valve train measurements contained in the FAA inspector's report, a document assertedly prepared from notes taken during the teardown he observed but did not personally perform. His principal contention, in which we find considerable merit, is that the inspector's report is uncorroborated and that, while admissible in an administrative hearing, it cannot or should not be considered substantial evidence. In this connection respondent points out that the inspector did not personally make any of the measurements contained in the report, that neither the full name nor the qualifications of the individual who did make them are in the record, that [the] individual, as an employee of a repair facility competing with respondent, had an economic incentive to find deficiencies, and that the inspector on one occasion interfered with respondent's efforts, through counsel, to interview this individual. We share respondent's view that absent cross examination the reliability of this evidence cannot be adequately evaluated.²⁹⁸

The Board did not reverse the decision based on that objection, however, but rather because the measurements presented were inadequate to show that a violation occurred.²⁹⁹

2. *Documents and Physical Evidence*

An attorney defending a mechanic or repair station should be ready to challenge the FAA's handling and presentation of physical and documentary evidence.

²⁹⁸ *Id.*

²⁹⁹ See *infra* note 309 and accompanying text.

Often the FAA, failing to properly preserve physical evidence, attempts to use oral testimony in order to reconstruct the physical evidence. Often the FAA attempts to present documentary evidence without proper authentication. The NTSB may exclude the evidence upon proper challenge by the defense attorney.

It is the policy of the NTSB to require that certain types of documentary evidence must have a sponsoring witness. For example, the Board upheld the ruling of an administrative law judge who denied the FAA's request to submit tape recordings, as well as a transcript of the recording, of a conversation between a pilot and an air traffic controller facility because the FAA failed to produce a sponsoring witness to introduce and verify the tapes.³⁰⁰ Similarly, in a suspension case involving an A & P mechanic, the Board held that a few loose and undated pages from a service manual with unknown handwriting at the top stating, "Cessna Service Manual 150, 172, 175, 180, 182, 185 Series 1962 and prior model" was unacceptable evidence to prove that the pages were from a service manual applicable for a 1956 Cessna 182.³⁰¹

Moreover, the FAA may have a duty to preserve evidence. In *Waingrow v. Administrator*,³⁰² the Board upheld the award of attorney fees to an airman who successfully defended against a suspension order. The Board criticized the FAA's failure to preserve critical evidence.³⁰³ The Compliance and Enforcement Manual imposes a duty on the FAA to preserve physical evidence.

Physical evidence consists of objects or items, such as cracked propeller, defective spar, worn engine parts or cables, [which are] pertinent to the violation. Care must be taken so that the handling of physical evidence does not result in damage, loss, or alteration. The inspector

³⁰⁰ *Daiker*, NTSB Order No. EA-1779 (judges can require a witness to sponsor exhibits due to broad discretion accorded the judges and the fact that the Federal Rules of Evidence are not binding).

³⁰¹ *Sanders*, 2 N.T.S.B. at 1386.

³⁰² NTSB Order No. EA-2175 (June 13, 1985).

³⁰³ *Id.* at 11.

must be prepared to testify to this fact. A chain of custody should be established. The purpose is to show who has had custody of it so that it can be shown that the evidence has not been changed or altered. The best procedure is to lock the evidence in a safe place until the time of the hearing. If this is not possible, the inspector should know and record the name(s) of any person who has taken possession of the piece of evidence. In any event, the report should specify the location of the physical evidence.³⁰⁴

The NTSB holds that in presenting evidence, the FAA is bound by FAA policy contained in FAA internal orders.³⁰⁵ An attorney representing the mechanic or air facility should be alert to the absence of any evidence, including physical evidence, which would be critical to the FAA's case. Such an absence may signal a sloppy investigation or bias on the part of the inspector. The attorney should also object vigorously to all FAA testimony based on physical evidence which is not properly preserved.

3. *Circumstantial Evidence*

Typically when the FAA charges a mechanic or air facility with failure to do proper maintenance on an aircraft, the shortcomings are discovered long after the maintenance is actually performed. In such cases, therefore, the NTSB allows the FAA to establish its case with circumstantial evidence.³⁰⁶

³⁰⁴ FAA COMPLIANCE AND ENFORCEMENT, *supra* note 52, at 55. *But see* Administrator v. Cusic, NTSB Order No. EA-1945 (Oct. 7, 1983). A mechanic objected to the introduction of certain parts taken from an aircraft engine during a teardown inspection on the grounds that a proper chain of custody was not established. The parts were admitted, however, because the complainant's witnesses positively identified "certain engine parts . . . as those removed during the teardown. As a result, although there was abundant testimony as to where such parts had been between the teardown and the hearing, there was no obligation on the complainant to prove such a chain of custody." *Id.* at 2.

³⁰⁵ Administrator v. Randall, 3 N.T.S.B. 3624 (1981). (FAA orders must be entered into evidence at the hearing before they may be considered by the Board during appeal); *Conner Air Lines Inc.*, NTSB Order No. EA-2335.

³⁰⁶ Administrator v. Brown, NTSB Order No. EA-1845 (Nov. 12, 1982); *Jones*, 3 N.T.S.B. at 3649 (direct proof of maintenance violations is possible only where the aircraft is examined before it is flown, therefore in almost all cases, discrepancies are discovered after the aircraft has been flown and violations are inherently

In *Administrator v. Brown*,³⁰⁷ a mechanic overhauled an engine in January, 1978. The engine was stored until November, 1980, when the respondent installed it in a Piper J-3. In June of 1981, after receiving complaints from the owners, FAA inspectors conducted a tear-down inspection of the engine which revealed several discrepancies which rendered the engine unairworthy. The FAA moved to suspend the mechanic's IA license. The Board upheld the suspension holding that "the Administrator's evidence must of necessity be circumstantial in cases where an incomplete or improper assembly or repair, and inspection thereof, is not discovered until some time after the act or omission which constitutes the regulatory violation."³⁰⁸

An attorney defending a mechanic or air maintenance facility against an FAA action which is based on circumstantial evidence must not allow the FAA to assume, without basis, that any discrepancies discovered during the FAA's investigation existed at the time of the maintenance. In *Administrator v. Alphin*,³⁰⁹ an FAA inspector reported finding several discrepancies in two aircraft engines during a teardown inspection. One discrepancy included a slight surface crack in a crankshaft; another included some valve guide tolerances which were out of established limits. The FAA subsequently moved to suspend the IA license of the mechanic who supervised the overhaul of the engines. The Board overturned the suspension, in part because there was nothing in the record to show that the crack in the crankshaft and the excess wear in the valve guides existed before the overhaul inspection. It was possible that the discrepancies occurred in the 80 and 150 hours engine running time since the overhaul. In some cases, the burden on the FAA can be

provable only by circumstantial evidence); *Administrator v. Moris*, 2 N.T.S.B. 2102 (1976); *Peralta*, 1 N.T.S.B. at 1724.

³⁰⁷ NTSB Order No. EA-1845 (Nov. 12, 1982).

³⁰⁸ *Id.* at 4, 5.

³⁰⁹ NTSB Order No. EA-2008 at 8, 10-11; see *supra* note 165 for the history of this case.

minimal, as in *Administrator v. Jones*, where the FAA found discrepancies in an engine a mere five flight hours after a overhaul was performed.³¹⁰

4. Evidence Excluded by Regulation

The FARs and other federal regulations may forbid certain parties from presenting evidence. For example, the FAA cannot use Aviation Safety Reports submitted to the National Aeronautics and Space Administration in an enforcement proceeding.³¹¹ Regulations of the Department of Transportation restrict the testimony that a certificate holder may present. The FAA has used 49 C.F.R. section 9.5(a) as a basis for preventing an airman from calling FAA employees to testify on his behalf in a certificate proceeding.³¹² This ability of the FAA to restrict the testimony of its employees has been bitterly criticized by many in the aviation community.³¹³ The resentment of the aviation community is fed by the liberal exceptions to this rule granted by the FAA to its own employees. In a recent case,³¹⁴ FAA regional counsel granted permission to an

³¹⁰ *Jones*, 3 N.T.S.B. at 3651.

³¹¹ 14 C.F.R. § 91.58 (1988) provides:

The Administrator of the FAA will not use reports submitted to the National Aeronautics and Space Administration under the Aviation Safety Reporting Program . . . in any enforcement action, except information concerning criminal offenses or accidents which are wholly excluded from the program.

Id.; see also SAFETY PROGRAM, *supra* note 121. In certain cases, the FAA may not impose a civil fine or bring a certificate action against an individual reporting under the Aviation Safety Reporting Program. For a detailed insightful discussion of the limited protections under the Safety Reporting System, see Yodice, *supra* note 137, at 43, 46.

³¹² *Administrator v. Sims*, 3 N.T.S.B. 672 (1977) (49 C.F.R. § 9.5(a) applied to prohibit an air traffic control specialist employed by the FAA from testifying for respondent). "[A]n employee of the Department may not testify as an expert or opinion witness for any party other than the United States in any legal proceeding in which the United States is involved, but may testify as to facts." 49 C.F.R. § 9.5(a) (1987).

³¹³ See, e.g., Hamilton, *supra* note 68.

³¹⁴ Trial Transcript, *Tri State Airways v. Alphin Aircraft, Inc.*, No. L-37005-79 (N.J. Super. Ct. Law Div. Dec. 16, 1981).

THE COURT: But do I understand that the regulations prohibit an employee of the FAA from rendering an opinion in a private litiga-

FAA inspector to appear as a paid expert witness concerning a teardown inspection which the FAA inspector observed for the FAA, although such action is a direct violation of 14 C.F.R. section 9.³¹⁵

F. Constitutional Protections

Fourth amendment search and seizure restrictions and the Fifth amendment right against self-incrimination do not apply to the defendant in a certificate proceeding.³¹⁶

tion matter, is that right? THE WITNESS: May I make a statement? Before I came here, we ran this through our legal department, through the head of our office in the Eastern Region, and I was allowed to come here. I'm here as a civilian on my own time and not by the government. I'm not here in a government capacity. MR. BECKMAN: . . . He is here to testify as an official of the FAA and to attempt to subvert the plain requirements of the Code of Federal Regulations by saying that he has somehow come as a civilian.

Id. at 112-13.

³¹⁵ 49 C.F.R. § 9.7 (1987). "[A]n employee of the Department [of Transportation, including the FAA] may not testify as an expert or opinion witness, as to any matter related to his duties . . . in any legal proceeding between private litigants" *Id.*

³¹⁶ Administrator v. Fisher, NTSB Order No. EA-2009 (June 18, 1984). "That reinspection authority [of the FAA] is not contingent upon a probable cause to believe that a deficiency exists but can be exercised on a random basis." *Id.*; Administrator v. Smith, NTSB Order No. EA-1924 (July 7, 1983). "[W]e note our agreement with the law judge's rejection of respondent's claim of a Fifth Amendment privilege against self-incrimination as a basis for not answering questions at the deposition." *Id.* at 3 n.5; *Roach*, NTSB Order No. EA-1886 (airman compelled to testify about the incident at his own certificate hearing); Administrator v. Anderson Aviation Corp., 3 N.T.S.B. 3252, 3255 (1981). (FAA's authority to selectively or randomly carry out its inspection authority upheld); Administrator v. Brodnax, 3 N.T.S.B. 2795 (1980). "The law judge, in rejecting respondent's argument that the search of the plane was unreasonable and in violation of his constitutional rights under the Fourth Amendment, noted correctly that the cases cited by respondent generally involved criminal proceedings rather than with aviation enforcement proceedings" *Id.* at 2796; Administrator v. Patterson, 3 N.T.S.B. 1748 (1979) (motion to suppress evidence denied); Administrator v. Pittock, 2 N.T.S.B. 2075 (1976), "[J]udicial decisions requiring that preinterrogation warnings be given to suspects during criminal investigations do not apply to aviation enforcement proceedings . . . [therefore] the FAA representative was under no legal or constitutional obligation to give a *Miranda* warning" *Id.* at 2076; *Harrison*, 2 N.T.S.B. at 504 (preinterrogation warnings do not apply to aviation enforcement proceedings); Administrator v. Salkind, 1 N.T.S.B. 714 (1970). "In accordance with standard FAA procedures, these inspectors sent to respondent a letter or notice stating that the particular incident was under investigation and inviting respondent to submit any relevant information he had. . . . [Airman's

"[T]he Board ha[s] consistently held that its administrative proceedings are civil in nature and that rights afforded criminal defendants are not available and cannot be invoked."³¹⁷ The attorney representing a mechanic or repair station should advise his client that the FAA may use any statements he or she may make to establish the FAA's case.³¹⁸

G. *Appeal to the Board After the Initial Decision*

Although the Board delegates the authority to conduct certificate proceedings to the administrative law judges, Congress specifically empowered the Board to review the actions of the Secretary of Transportation and the FAA in amending, suspending or revoking an aviation certification.³¹⁹ The Board retains the authority to review any decision of its administrative law judges, either on its own initiative or on appeal from one of the parties.³²⁰ An attorney conducting such an appeal should consider the nature and composition of the Board and its members. Unlike state and federal appellant courts, as well as many administrative appeal boards such as the Merit Systems Protection Board or the National Labor Relations Board, the NTSB is not a neutral party of impartial jurists. It is

reply was properly] admitted into evidence at the hearing, over the objection of respondent." *Id.* at 715. *But see* *Patterson v. NTSB*, 638 F.2d 144, 146 (10th Cir. 1980) (court implicitly held that Fourth Amendment search restrictions do apply in certificate proceedings by finding that the search in question came within the "open fields" exception to the Fourth Amendment). The number of cases cited in this footnote is testimony to the widespread illusion among airmen that the Fourth and Fifth Amendments protect their rights.

³¹⁷ *Roach*, NTSB Order No. EA-1886. *But see* *Administrator v. Danielson*, 3 N.T.S.B. 161 (1977) (evidence improperly obtained by customs agents was properly suppressed by the administrative law judge at an NTSB hearing where the pilot's certificate was to be revoked for smuggling illegal drugs by aircraft).

³¹⁸ The issues of when and how much to cooperate with the FAA during an investigation are areas where the defense attorney may be of great assistance. For excellent discussions of these issues, see Hamilton, *supra* note 68 and Pangia, *Handling FAA Enforcement Proceedings: A View from the Inside*, 46 J. AIR L. & COM. 573, 586-88, (1981).

³¹⁹ 49 U.S.C. app. § 1429(a) (1982).

³²⁰ 49 C.F.R. §§ 821.43, 821.47 (1987).

an activist body dedicated to uncovering transportation safety problems.

The Department of Transportation Act established the NTSB in 1966 "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations."³²¹ The NTSB is "both the Federal government's transportation accident investigator, and the Federal 'watchdog' of transportation safety."³²² The NTSB actively participates in air, highway, rail transportation, and pipeline safety.

The NTSB considers several issues in a review, including whether each of the administrative law judge's findings of fact are supported by a preponderance of reliable, probative and substantial evidence.³²³ The Board regularly reviews the findings of its administrative law judges under this standard and will unapologetically overturn the initial decision whenever the Board disputes the administrative law judge's findings of fact.³²⁴ In reviewing "the

³²¹ 49 U.S.C. app. § 1901(1) (1982).

³²² 1984 NTSB ANN. REP. 3.

³²³ 49 C.F.R. § 821.49 (1987). The NTSB also considers whether the conclusions are made "in accordance with precedent and policy", whether "the questions on appeal are substantial" and whether or not "any prejudicial errors occurred." *Id.*

³²⁴ See, e.g., *Alphin*, NTSB Order No. EA-2008. "[W]e are unable to find support for the law judge's statement that '[b]oth engines had serious operational problems continuously after the so-called overhauls'" *Id.* at 3 (citation omitted); *DiGiovanni*, NTSB Order No. EA-1768 (in reviewing the record the Board found that the evidence did not adequately support all of the violations affirmed by the administrative law judge); *Aircraft Engine Maintenance*, 3 N.T.S.B. at 3051. "We find the evidence in the record insufficient to establish any of the violations. . . . Accordingly the Administrator's order and the initial decision are reversed." *Id.*; *Sanders*, 2 N.T.S.B. at 1386 (holding that the law judge's rationale for failing to impose a suspension was unsound). For cases showing that the Board is less likely to overturn the administrative law judge's procedural rulings, see also *Daiher*, NTSB Order No. EA-1779. "[O]ur law judges have broad discretion . . . to require compliance with reasonable procedures concerning the submission of evidence at a hearing." *Id.*; *Torbert*, 3 N.T.S.B. at 2718 (holding that granting amendments to complaints was within the judge's discretion); *Patterson*, 3 N.T.S.B. at 1748 (administration law judge has discretion to grant continuance); *Danielson*, 3 N.T.S.B. at 161 (upholding administrative law judges exclusion of certain evidence); see also *Patterson*, 638 F.2d at 144 (continuance properly denied). But see *Sims*, 3 N.T.S.B. at 672 (holding that the administrative law judge erred in denying administrator's motion to exclude a witness).

initial decision, the Board has all the powers which it would have in making the initial decision except as it may limit the issues on notice or by rule."³²⁵

The Board states that a "credibility determination is within the exclusive providence of the law judge, who as the trier of fact is alone in a position to observe and assess the demeanor of the witnesses."³²⁶ The Board, however, does not automatically defer to its administrative law judge's determinations of conflicting expert testimony. In one recent case, the Board noted: "[G]enerally, a law judge's resolution of conflicting expert opinion testimony would not be accorded the same degree of deference since the probative force of such testimony ordinarily can be weighed adequately without personal observation of the witness."³²⁷ Unlike federal appellate courts and some other administrative boards, the Board brings independent technical expertise to its cases. Congress requires at least three of the five Board members to be experts in the area of transportation safety.³²⁸ In addition, the Board utilizes a large staff of aviation and engineering specialists.³²⁹ Although the Board has no "authority to pass on the reasonableness or validity of FAA regulation, but is limited to reviewing the Administrator's finding of fact and action thereunder", the Board's interpretation of the FARs can often help clarify what the FAA fails to make clear.³³⁰

³²⁵ 5 U.S.C. § 557(b) (1982); cf. *Connolly v. United States Dep't of Justice*, 766 F.2d 507, 510-11 (Fed. Cir. 1985) (administrative board has broad authority to review administrative law judge's initial decision).

³²⁶ *Administrator v. Sidicane*, 3 N.T.S.B. 2447, 2451 (1980); accord *Muscantine Flying Service, Inc.*, NTSB Order No. EA-2487 (Board adopted the judge's findings and affirmed a revocation and suspension order imposed by the judge); *Administrator v. Adams*, 3 N.T.S.B. 3611, 3614 (1981).

³²⁷ *Calavaero*, NTSB Order No. EA-2321 at 5 n.8.

³²⁸ 49 U.S.C. app. § 1902(b) (1982). Congress requires that "no less than three members of the Board shall be individuals . . . [possessing] knowledge in the fields of accident reconstruction, safety engineering, human factors, transportation safety, or transportation regulation." *Id.*

³²⁹ 49 C.F.R. §§ 800.2(e)-(g) (1987).

³³⁰ *Administrator v. Ewing*, 1 N.T.S.B. 1192, 1194 (1971); accord *Administrator v. Worldwide Airlines, Inc.*, NTSB Order No. EA-2385 (Aug. 6, 1986) (holding

IV. RELATIONSHIPS AMONG THE FAA, THE NTSB AND THE FARs

Normally, a legislative body has a dynamic relationship with the judicial body that interprets and enforces its regulations. The judicial body attempts to enforce the regulations in accordance with the legislative intent. The legislature monitors the judicial body and modifies their regulations whenever the judicial body confuses or misinterprets the legislative intent.

For example, the Equal Access to Justice Act requires that unless the position of an agency is substantially justified, an agency which loses in an adversary proceeding against a private individual must pay the individual's legal fees.³³¹ Several circuits of the United States courts of appeal initially defined "position of the agency" to mean only "the arguments relied upon by the Government in litigation." Excluded from this definition is any underlying misconduct of the agency.³³² Under this standard, if an FAA investigator botches an investigation and wrongfully suspends an airman's certificate but the FAA attorneys proceed in good faith with an enforcement action, the prevailing airman would not be entitled to legal fees because the FAA attorneys' arguments during litigation are substantially justified. Congress disagreed with the courts narrow interpretation, and amended the Equal Access to Justice Act to define "position of the agency". The new statutory definition includes the underlying acts of

than an administrative law judge has no authority to dismiss case on a speculative basis); *Whetsel*, NTSB Order No. EA-2110 (Board lacks jurisdiction to entertain a challenge to the validity of the regulatory provision adopted by the Administrator); *Administrator v. Langley*, 3 N.T.S.B. 1218 (1978) (Board lacks jurisdiction to review a regulatory provision adopted by the Administrator); see also *Schwartz v. Helms*, 712 F.2d 633 (D.C. Cir. 1983) (NTSB no longer has the power to decide whether a pilot should be certified, but whether the facts of the case satisfy FAA rules); *Watson v. NTSB*, 513 F.2d 1081, 1082 (9th Cir. 1975) (NTSB has no jurisdiction over challenges to FAA regulations).

³³¹ 5 U.S.C. § 504(a)(1) (1982).

³³² *E.g.*, *Spencer v. NLRB*, 712 F.2d 539, 557 (D.C. Cir. 1983) (Board's denial of engineer's request for certification was substantially justified).

the agency.³³³ Under this standard, the FAA pays legal fees to the airman for a botched investigation even if the FAA attorneys litigate in good faith.

The FAA and the NTSB should have a dynamic relationship in developing and interpreting the FARs. At least one example of such a dynamic relationship exists where the FAA changed the relevant portions of the FARs governing the coronary heart disease standards for pilot certification, when the FAA disagreed with NTSB decisions under the old standards.³³⁴ Such a clear and bold response by the FAA to NTSB interpretation of the FARs is, however, the exception. Typically the FAA ignores decisions of the NTSB and proceeds as if those decisions did not exist. The DOT Safety Review Task Force stated that "[e]arly findings from the FAA's Safety Activity Functional Evaluation verify the need for greater attention at the headquarters level to the dissemination of accurate and current interpretations of agency regulations and directives."³³⁵

Two cases illustrate this point.³³⁶ In 1980, section 43.5 of the FARs read:

No person may return to service any aircraft, airframe, aircraft engine, propeller or appliance that has undergone maintenance, preventative maintenance, rebuilding or alteration unless — (1) It has been approved for return to service by [a properly certified mechanic or repair station]; (2) the maintenance record entry required . . . has been made³³⁷

However, many maintenance procedures require that an

³³³ 5 U.S.C. § 504(b)(1)(E) (Supp. III 1985).

³³⁴ 47 Fed. Reg. 16,298; 16,302; 16,304 (1982) (commenting on 14 C.F.R. § 67.13(e)); see *Schwartz*, 712 F.2d at 638 (court upholds FAA authority to revise FARs even if the revision "forces the NTSB to accept the FAA's irrebuttable presumption that certain medical facts . . . automatically disqualify a pilot from receiving an unrestricted certification."); cf. *Administrator v. Schwartz*, 3 N.T.S.B. 2068 (1979) (pilot allowed unrestricted certificate under old standard).

³³⁵ TASK FORCE REPORT, *supra* note 80 at 3.

³³⁶ *Administrator v. Conley*, 3 N.T.S.B. 2236 (1980); *Hawkins*, 3 N.T.S.B. at 1653.

³³⁷ See also 14 C.F.R. §§ 43.7, 43.9, 43.11 (1988).

aircraft be flight tested after repairs.³³⁸ This puts mechanics and pilots in a bind. If a flight test occurs before the aircraft is properly returned to service, it appears that the pilot is in violation of the above provision of the FARs. However, if the flight test occurs after the return to service, it appears that the mechanic violates the FARs since the aircraft returns to service before the completion of maintenance.

In *Administrator v. Hawkins*³³⁹ a pilot owned an airplane which was not flown for many years. To be airworthy, it needed both major repairs and an annual inspection.³⁴⁰ The pilot contracted with an air station for repairs and an inspection of the aircraft. After the engine was installed, but prior to making any entries in the maintenance record, the pilot took the airplane out for a test flight. The FAA learned of the flight, and as a consequence suspended the pilot's license.³⁴¹ The Board reversed the holding that a test flight does not constitute a return to service. Therefore, there is no requirement of a prior maintenance entry before the test flight. In addition, the Board also held that a test flight of an airplane in conjunction with major repairs was not a violation of section 91.169 of the FARs which requires that no one may operate a noncommercial airplane that is overdue for an annual inspection.

The Board reaffirmed this holding in *Administrator v. Conley*.³⁴² Conley was the president of a corporation which owned a helicopter that had just been rebuilt. The helicopter had not had an annual inspection for over fourteen years. Conley retained an IA inspector to conduct

³³⁸ See *id.* § 91.167.

³³⁹ 3 N.T.S.B. 1653 (1979).

³⁴⁰ See 14 C.F.R. § 91.169(a)(1) (1988). "[N]o person may operate an aircraft unless, within the preceding 12 calendar months, it has had . . . [a]n annual inspection" *Id.*

³⁴¹ The repair station reported the incident after the pilot failed to pay for the repairs. *Hawkins*, 3 N.T.S.B. at 1653 n.11. Many FAA actions regarding maintenance issues involve some underlying dispute over the payment for repairs. The FAA will usually side with the party who complains first.

³⁴² 3 N.T.S.B. 2236 (1980).

the annual inspection in order to return the helicopter to service. After performing the inspection on the ground, the inspector instructed Conley to hover the helicopter in order for the inspector, who was on the ground, to observe the helicopter. The helicopter crashed.

The FAA brought an action against Conley for operating the helicopter before the IA had returned the helicopter to service.³⁴³ The administrative law judge, based on her examination of *Hawkins*, reversed the FAA. On appeal, the FAA argued "that an aircraft must be returned to service, by a certification in the logbook by an authorized inspector, prior to any operation, including a test flight."³⁴⁴ The Board upheld the law judge stating that "it was not the intent of the regulations to prohibit any test flights on aircraft which are undergoing major repairs but on which the annual inspection has expired."³⁴⁵

These two cases appear to resolve the issue. In 1982 however, two years after *Conley* and three years after *Hawkins*, the FAA revised the relevant sections of the FARs. The FAA modified section 43.5 of the FARs,³⁴⁶ by inserting the phrase "approve for return to service". Section 43.5 now reads in relevant part: "No person may approve for return to service any aircraft, airframe, aircraft engine, propeller, or appliance, that has undergone maintenance, preventive maintenance, rebuilding, or alteration"³⁴⁷ The FAA also copied much of section 43.5 into the lead paragraph of section 91.167 of the FARs. The intent was for section 43.5 to apply to mechanics and repair stations, and for section 91.167(a) to apply to the operator or the pilot of the aircraft.³⁴⁸ In

³⁴³ If the IA completes the inspection and signs the maintenance records before the test flight is made, it is probable that the FAA will bring an action against the IA for performing an improper inspection.

³⁴⁴ *Conley*, 3 N.T.S.B. at 2236.

³⁴⁵ *Id.* at 2238.

³⁴⁶ See *supra* note 337 and accompanying text for the original text of section 43.5.

³⁴⁷ 14 C.F.R. § 43.5 (1988); see 47 Fed. Reg. 76,895 (1980)(discussing the proposed change).

³⁴⁸ See also MAINTENANCE RECORDS, *supra* note 143.

the discussion of comments in Volume 47 of the Federal Register, the FAA noted:

Because [section] 43.5 is amended to make it clear that "approval for return to service" does not involve operation of the aircraft, section 91.167(a) is changed to prohibit any person from operating an aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless it has been approved for return to service by a person authorized under section 43.7 of this chapter and the maintenance record entries required by section 43.9 or section 43.11 have been made. That is, *the aircraft must be approved for return to service prior to any operation, including test flights* provided for in section 91.167(b).³⁴⁹

The discussion of the comments makes no reference to *Conley* or *Hawkins*.

There seems to be no consensus among the FAA investigators or among the aviation industry on the status of test flights. In 1984, nearly five years after *Conley* and *Hawkins*, and two years after the FARs were updated, an IA mechanic, who worked several years as a laboratory specialist for the Airplane Owners and Pilot Association Air Safety Institute and was then Executive Vice President of a major air station, discussed with this author the issue of whether a test flight is a violation of the FARs if the flight occurs before an approval for return to service. Neither of us knew the answer. Nor did any of the FAA inspectors whom the IA mechanic contacted. The DOT Safety Review Task Force stated: "During the course of its review, the Task Force has become convinced that there is a need for the FAA to improve its internal processes for information exchange and, further, to improve processes for disseminating information to the industry and the general public."³⁵⁰

Over a year after the NTSB issued the decision in *Ad-*

³⁴⁹ 47 Fed. Reg. 41,080 (1982) (emphasis added).

³⁵⁰ TASK FORCE REPORT, *supra* note 80, at 3.

ministrator v. Alphin,³⁵¹ the FAA inspectors who prepared the Alphin Enforcement Investigation Report and the supervisors who approved the report were deposed. When asked if they knew about the NTSB decision, the inspectors and their supervisors testified that there were rumors that the suspension was overturned, but that they did not know why. None had seen or read the decision. In *Alphin*, the NTSB overturned the FAA suspension because the teardown inspection was improperly performed by the inspectors. Since the FAA failed to disseminate the results of *Alphin* to its inspectors, it is likely that the mistakes made in *Alphin* will be repeated in future investigations.

Due to the communication problems between the NTSB, the aviation community and the FAA safety inspectors, the FAA should consider incorporating a short synopsis of the relevant holdings of the NTSB into the appropriate sections of the FARs. For example, the following entry could be added to section 91.167 of the FARs:

A pilot may conduct a flight test under the direction of an IA mechanic after a major repair and during an annual inspection but before such aircraft has been approved for return to service by such mechanic. *Administrator v. Conley*, 3 N.T.S.B. 2236 (1980).

This would implement the DOT Task Force recommendation "[t]hat the FAA establish procedures to achieve more uniform interpretation and application of its inspection and certification requirements."³⁵² Mechanics, pilots and FAA inspectors would welcome such clarification.

The FAA seems, unfortunately, reluctant or timid about changing or clarifying the FARs. The DOT Task Force Report states:

[T]he FAA has relied largely on the industry to trigger reviews of regulatory procedures and requirements. It appears clear that, in today's rapidly changing environment,

³⁵¹ NTSB Order No. EA-2008; see *supra* note 165 for the history of the case.

³⁵² TASK FORCE REPORT, *supra* note 80, at 3.

the FAA, in order to maintain its role in assuring aviation safety, must become much more active in reviewing and recommending modifications to regulatory requirements.³⁵³

Instead of changing or clarifying the FARs, the FAA attorneys will attempt to expand existing regulations to cover activities not directly prohibited in the FARs. For example, in *Administrator v. Krog*,³⁵⁴ the FAA attempted to suspend the operating certificate of an air carrier, in part because the air carrier failed to follow a portion of its own operations manual. The NTSB reversed the decision because nothing in the FARs requires that an air carrier follow its own operations manual. It is undisputed that the FARs could require an air carrier to follow its own operations manual. But if the FAA believes a certificate holder should follow a certain rule, the FAA must require such action in the FARs.³⁵⁵

Occasionally, the NTSB allows the FAA to enforce an unclear or vague regulation. In *Administrator v. Tomahawk Airways, Inc.*, the FAA brought a certificate action against an air taxi and commercial operator.³⁵⁶ The FAA alleged that Tomahawk, Inc. failed to include in its maintenance records the total time in service of each engine as required under section 91.173(a)(2)(iii) of the FARs. The administrative law judge concluded that section 91.173(a)(2)(iii) did not require that maintenance records contain the total time in service of each engine. The NTSB agreed "with the law judge that the sub-paragraph is confusing," but nevertheless held that the air carrier was responsible for completing "time in service entries" for each engine in its maintenance records. Apparently

³⁵³ *Id.* at 15.

³⁵⁴ NTSB Order No. EA-2397 (Sep. 3, 1986).

³⁵⁵ See also *Apollo Airways*, NTSB Order No. EA-2373 "However, the Administrator failed to effectively establish the regulatory requirement that he believes was violated. The Administrator's basic claim is that respondent is required to follow its manual. . . . [T]he allegation fails because the Administrator failed to cite a standard or requirement in the manual which is sufficiently explicit to support the charged violation." *Id.* at 13.

³⁵⁶ NTSB Order No. EA-2467.

neither the FAA nor the NTSB sees irony in requiring a mechanic to understand a regulation that confuses even an experienced administrative law judge.³⁵⁷

The use of case law to uphold poorly drafted and confusing sections of the FARs is unfortunate for two reasons. The first is that the enforcement of poorly drafted and confusing regulations may deprive a certificate holder of due process.³⁵⁸ The second reason is that where a poorly drafted regulation is upheld, the FAA has little motivation to rewrite and clarify the regulation. This is especially detrimental to air safety. Many aviation mechanics study the FARs, specifically those portions of the FARs that apply to maintenance. Mechanics must demonstrate familiarity with the applicable portions of the FARs in order to obtain a mechanic's certification or an IA.³⁵⁹ On the other hand, most mechanic's have no access to NTSB decisions. Few mechanics read the NTSB decisions because most mechanics do not know they exist.

Where a regulation is clear, most mechanics will follow it. If the regulation is unclear and the NTSB issues a decision clarifying the application of the regulation, mechanics will nonetheless remain ignorant of the NTSB clarification. Since there are a limited number of FAA inspectors, the most efficient way for the FAA to disseminate its standards is to clearly write the standards into the FARs.

V. CONCLUSION

Admiral Donald D. Engen, a former FAA Administrator

³⁵⁷ "Q. Are there any general education prerequisites for obtaining the mechanic certificate? A. No; however, some employers may require a minimum of a high school education." CERTIFICATION INFORMATION, *supra* note 11, at 1.

³⁵⁸ See *Pike v. Civil Aeronautics Bd.*, 303 F.2d 353, 357-58 (8th Cir. 1962) (noting disturbing lack of specificity and completeness, particularly if, as a result, an airman is deprived of future experience as well as the ability to engage in his livelihood); see also *Administrator v. Sorenson*, 3 N.T.S.B. 3456 (1981). "In the event that a regulation contains an ambiguity, the Board may find that it is unenforceable." *Id.* at 3458.

³⁵⁹ 14 C.F.R. §§ 65.75(a), 65.91(c)(5) (1988).

and former member of the Board, has said: "Full compliance with Aviation Regulations is the essence of aviation safety."³⁶⁰ Unfortunately, at the present time aviation regulations governing mechanics and air repair facilities are not only often unclear but also interpreted inconsistently by the FAA airworthiness inspectors. The situation will remain unchanged until the FAA attorneys and executives take the lead by using the results of enforcement actions as guidelines in rewriting and clarifying the FARs and as guidelines for training airworthiness inspectors.

The airworthiness inspectors are too often poorly trained both in the interpretation of the FARs and in the development of tests and procedures to demonstrate non-compliance with the FARs. The attorney who understands the sections of the FARs relevant to the case, who understands the often technical or scientific evidence, who systematically matches the evidence to each alleged discrepancy or violation claimed by the FAA, and who presents the defense in a clear and thorough manner, can often prevail over the FAA in aviation maintenance cases. The attorney must do this to ensure that his hardworking clients, who may be falsely accused by busy and untrained FAA inspectors, are properly represented.

³⁶⁰ Office of the Assistant Secretary for Public Affairs, Department of Transportation, Press Release FAA 02-87 (Feb. 10, 1987).

